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ABSTRACT

In the spring of 1975, a manpower survey was conducted to determine the educational, occupational, and career plans of college students in Indiana who were about to complete the requirements for an associate degree. Fifty percent (1,467) of the expected associate degree recipients from public institutions, and all 623 of the expected recipients from independent institutions received the survey instrument. Overall, there was a 47 percent response rate (919). In addition to information elicited on student characteristics and backgrounds, the findings were these: The most commonly chosen major area of study was health service and paramedical technology. Only 31 percent of the respondents expected that the associate degree was the highest degree they would complete. Approximately two-thirds of the respondents indicated general fields of study they hoped to pursue in the future, the most popular being health related programs. Sixty-one percent expected to be employed in career jobs in the fall following their graduations, and 79 percent expected that their long-term careers would be related to their major fields of study. Data are organized into 36 tables, and the survey instrument is appended. (Author/NHM)

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INDIANA COLLEGE-LEVEL MANPOWER STUDY

Report Number Four

EDUCATIONAL PLANS AND CAREER CHOICES
OF
ASSOCIATE DEGREE RECIPIENTS IN INDIANA

by

Robert M. Greenberg, Ed.D.
Project Director

and

Richard B. Tully
Research Associate

December, 1975

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Indiana Commission for Higher Education
143 W. Market Street
Indianapolis, Indiana 46204

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Publications to date:

1. Review of Literature Related to College-Level Manpower Study for the State of Indiana, January, 1975
2. Educational Plans and Career Choices of High School College Preparatory Seniors in Indiana, October, 1975
3. Educational Plans and Career Choices of Bachelor's Degree Recipients in Indiana, November 1975
4. Educational Plans and Career Choices of Associate Degree Recipients in Indiana, December, 1975

Publications immediately forthcoming:

1. Educational Preferences for Employees Held by Major Indiana Businesses and Industries, January, 1976 (projected)

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PREFACE

The Indiana College-Level Manpower Study is being conducted by the Indiana Commission for Higher Education to provide manpower information of value to educational planning at the postsecondary level. Factors involving both manpower supply and demand are being investigated, and educational and occupational areas in which major supply/demand imbalances exist will be determined.

This publication is the report of a questionnaire survey conducted in spring, 1975, to determine the educational, occupational and career plans of college students in Indiana who were within a short time of completing work toward an associate degree. The data should provide valuable information for the determination of Indiana's college-level manpower supply.

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PART I

HIGHLIGHTS

Demographic Characteristics

This report is based upon a questionnaire survey of a sample of those students completing work toward associate degrees in Indiana within approximately one month of their spring, 1975 graduation.

Twenty-four percent of the respondents' fathers were in the craftsmen-foremen-kindred occupational category (definitions of occupational/career categories are in List "B" in Appendix B). An additional eighteen percent were in the professional-technical-kindred category and seventeen percent were in the operatives category. Nearly half of their mothers were identified as being housewives. Sixteen percent were listed as being clerical workers and twelve percent were in the professional-technical-kindred category.

Twenty-nine percent of the fathers and 25 percent of the mothers had not graduated from high school, and 48 percent of the fathers and 58 percent of the mothers had received a high school diploma as their highest educational degree. Sixteen percent of the fathers and fourteen percent of the mothers had completed associate or bachelor's degree work, and eight percent of the fathers and two percent of the mothers had received graduate degrees.

Educational Backgrounds and Future Plans for Education

Forty percent of the respondents had interrupted their formal education for an extended period of time since completing high school, with significantly more males than females having experienced such an interruption.

Associate degree fields were divided into four categories; business and commerce technologies, health service and paramedical technologies, mechanical and engineering technologies, and miscellaneous associate degree programs including data processing, natural science, public service, and other associate degree programs. Twenty percent of the respondents indicated that their first declared majors had been bachelors level programs, so all four associate degree areas had experienced increases when respondents' first declared majors were compared with their current majors (at time of graduation).

The most commonly chosen major area of study was the health service and paramedical technologies. Sizable proportions of the respondents had majored in the other areas of mechanical and engineering technologies, business and commerce technologies, and the miscellaneous associate degree programs.

Only 31 percent of the respondents expected that the associate degree was the highest level educational degree they would complete. Forty-eight percent expected their highest degree would be the bachelor's, seventeen percent the master's, and four percent expected to complete first professional, specialist's or doctorate degrees.

Approximately two-thirds of the respondents indicated a general field of study they hoped to pursue in the future. The most popular field for further study was the health-related programs.

The relationships between the major field of study and respondents' interests and career choices were indicated by the respondents as the most important factors considered in choosing a major. The relationship between the major and their talents/aptitudes was also very important to a majority. The status or prestige of the major and the influence of parents, relatives, or friends were much less important than these three factors.

Occupation and Career Plans and Aspirations

Sixty-one percent of the associate degree recipients expected to be employed in career jobs in the fall subsequent to their graduation, with an additional eighteen percent expecting to hold non-career jobs. Eleven percent expected further formal study to be their primary activity in the fall, while one percent expected to be in the military and ten percent anticipated being outside the work force. For ten years hence, the number expected to hold career jobs increased to 87 percent.

Nursing was the specific occupation most frequently chosen as a career (27 percent). No other occupation was indicated as a career choice by more than six percent of the respondents.

Seventy-nine percent of the associate degree recipients expected that their long-term career would be highly related to their major field of study, including 91 percent of the graduates of health service and paramedical technologies. An additional nineteen percent of the respondents expected that their careers would be somewhat related to their field of study, and only two percent did not anticipate a relationship in this regard.

Interest in work activities was the most important factor considered in making a career choice. Other factors indicated by a majority of respondents as having been very important were being of service to others, working with people rather than things, the opportunity to use special talents and abilities, and security. The most frequently desired career work environments were business-industry and health care facilities. More than one-quarter of the respondents had changed their career choice since entering college.

Previous work experience was the most important source of information for the respondents as they made their career choices. Many indicated that college teachers, college courses, and parents or relatives had been very important to them in making this decision.

Approximately one-third of the respondents reported that they had received occupational or career counseling while in college. Eighty-five percent of these who had received this counseling thought it had been helpful, with 27 percent indicating it had been very helpful.

Seventy-three percent of the respondents including 81 percent of the females and 63 percent of the males, expected to be living in Indiana when entering their long-term career employment.

PART II

INTRODUCTION

The State of Indiana does not have a public junior or community college system. Those programs normally associated with two-year institutions are offered in varying degrees by all of the public postsecondary institutions. Vincennes University and the Indiana Vocational Technical College (IVTC) offer the associate degree as highest degree level available. Vincennes provides occupationally oriented two-year programs as well as academically oriented transfer programs while IVTC offers vocational-technical programs designed for employment. The main and regional campuses of the state's universities also offer associate degree programs in a wide variety of subject areas.

Many of the independent colleges and universities in Indiana grant degrees at the associate level. These institutions are found in all parts of the state and offer a wide variety of associate degree programs ranging from the highly technical to the transfer.

Many colleges and universities have adopted the practice of conducting follow-up studies of their associate level graduates. In most cases, degree recipients are sent a questionnaire within a year of their graduation asking them about their employment and salary levels. Such information can be of great value to institutional planning, but provides a measure of manpower demand, not supply. Such studies rarely question the graduate about the type of employment he/she had sought as a first preference.

Most associate degree programs relate more directly to specific occupations than do bachelor's degree programs and it would appear to be a simple task to translate degrees granted at the associate level to manpower supply. By relating the numbers of graduates from associate degree programs to the occupations for which they have been trained, estimates of new manpower supply to these occupations can be derived.

However, the problem is not quite this simple. In the first place, it is important to assess the degree to which graduates at the associate level plan to enter occupations related to their major fields of study. It may be invalid to assume that all the graduates of job-related associate-level programs intend to pursue employment related to their training.

It is also important to assess the long-range career aspirations of these degree recipients. Even if a great majority plan to enter occupations closely related to their education or training immediately after graduation, it is possible that many intend to pursue further formal education and aspire to careers related to baccalaureate or higher degrees. The long-range career plans of these graduates are just as important in assessing manpower supply as their short-term occupational plans.

It is also of value to investigate the reasons that degree recipients at the associate level have chosen their major fields of study and careers. Such information can be useful in program planning and student counseling as well as in assessing determinants of manpower supply.

It is the intent of this report to investigate the manpower supply of associate degree recipients in Indiana on the bases of their educational, short-term occupational, and long-term career aspirations. It is not being argued that the plans of these individuals will not change over time and that all of the graduates will see their aspirations fulfilled. However, it is contended that the plans and aspirations of postsecondary education degree recipients are important factors in assessing college-level manpower supply, and as these plans and aspirations are related to numbers of degrees granted, estimates and projections of manpower supply can be more meaningfully developed.

PART III

DEMOGRAPHIC CHARACTERISTICS OF ASSOCIATE DEGREE RECIPIENTS IN INDIANA

This report is based upon a questionnaire survey of a sample of college students in Indiana's public and independent colleges and universities who were about to complete the requirements for an associate degree in the spring of 1975. The survey was conducted in order to determine the educational, occupational, and career plans and aspirations of these students. A discussion of the study methodology is contained in Appendix A.

TABLE 1: QUESTIONNAIRE RESPONSE RATES (BY INSTITUTION)

| Institution | 1 Sent Out | 2 Usable Returns | 3 Non- Deliverable | 4 Blank or Invalid Returns | 5 Percent Returns |
|---------------------------------------|------------------|------------------------|--------------------------|-------------------------------------|-------------------------|
| Public Institutions | 1,467 | 643 | 23 | 41 | 47.4% |
| Bell State University | 67 | 27 | 0 | 11 | 56.7 |
| Indiana State University | 20 | 9 | 0 | 0 | 45.0 |
| Indiana Vocational-Technical College* | 223 | 128 | 11 | 13 | 66.5 |
| Indiana University | 295 | 136 | 4 | 2 | 47.4 |
| Purdue University | 436 | 202 | 1 | 0 | 46.4 |
| Vincennes University | 426 | 141 | 7 | 15 | 37.2 |
| Independent Institutions | 623 | 276 | 4 | 9 | 46.0 |
| Ancilla Domini College | 25 | 8 | 1 | 0 | 33.3 |
| Anderson College* | 69 | 38 | 0 | 1 | 56.5 |
| Bethel College | 2 | 1 | 0 | 0 | 50.0 |
| Butler University | 2 | 1 | 0 | 0 | 50.0 |
| Calumet College | 58 | 20 | 0 | 0 | 34.5 |
| Holy Cross Junior College | 14 | 7 | 0 | 0 | 50.0 |
| Huntington College | 16 | 9 | 0 | 0 | 56.3 |
| Indiana Central University | 138 | 66 | 0 | 0 | 47.8 |
| International Junior College | 65 | 38 | 0 | 0 | 58.5 |
| Marion College | 3 | 2 | 0 | 0 | 66.7 |
| Northwood Institute | 25 | 14 | 0 | 0 | 56.0 |
| Oakland City College | 10 | 5 | 0 | 0 | 50.0 |
| Tri-State University | 19 | 10 | 0 | 0 | 52.6 |
| University of Evansville | 173 | 55 | 3 | 8 | 37.1 |
| Valparaiso University | 4 | 2 | 0 | 0 | 50.0 |
| Total | 2,090 | 919 | 27 | 50 | 47.0 |

*Institutions at which a second mailing was conducted

Column 1 = Total questionnaire distribution

Column 2 = All responses usable in data analysis

Column 3 = Undelivered questionnaires returned to Commission office

Column 4 = Response sheet returned blank (i.e. nongraduates) or response sheets which were unusable

Column 5 = $\frac{\text{Columns 2} + \text{4}}{\text{Columns 1} - \text{3}}$

Table 1 represents the Occupation and Career Interest Survey response rates for the associate level graduates included in the study sample. An overall response rate of 47 percent was received, comprised of 47.4 percent of the public sector's sample and 46 percent of the independent sector's.

Fifty percent of those reported as graduating from public institutions were chosen by a random selection process and received the survey instrument. One hundred percent of the independent schools' graduates were sent the questionnaire. Because of this difference, a weighting factor of two has been applied to the responses of all public institutions' graduates in the subsequent tables of this report.

* * * * *

TABLE 2: SEX OF SURVEY RESPONDENTS

*Question 1: * What is your sex?*

| Sex | Public Institutions | | Independent Institutions | | All Institutions | |
|-------------|---------------------|-------|--------------------------|-------|------------------|-------|
| | n | % | n | % | n | % |
| Male | 602 | 46.8 | 108 | 39.1 | 710 | 45.5 |
| Female | 682 | 53.0 | 168 | 60.9 | 850 | 54.4 |
| No response | 2 | 0.2 | 0 | 0.0 | 2 | 0.1 |
| Total | 1,286 | 100.0 | 276 | 100.0 | 1,562 | 100.0 |

*Refers to questionnaire number. (See Appendix B)

The data of Table 2 indicate that approximately 54 percent of the questionnaire respondents were female and 46 percent male. Females outnumbered males at both the independent and public institutions, comprising 61 percent of the independents' respondents and 53 percent of the public's'.

* * * * *

TABLE 3: AGE OF RESPONDENTS

Question 2: How old will you be on July 1 of this year?

| Age | Public | | | Independent | | | All | | |
|--------------|---------------|-----------------|------------------|---------------|-----------------|----------------|---------------|-----------------|------------------|
| | Male n=602 | Female n=682 | Total n=1,284 | Male n=108 | Female n=168 | Total n=276 | Male n=710 | Female n=850 | Total n=1,560 |
| 18-19 | 12.6% | 15.2% | 14.0% | 14.8% | 26.8% | 22.1% | 13.0% | 17.5% | 15.4% |
| 20-21 | 37.9 | 47.8 | 43.1 | 48.1 | 45.2 | 46.4 | 39.4 | 47.3 | 43.7 |
| 22-23 | 14.0 | 10.3 | 12.0 | 7.4 | 10.1 | 9.1 | 13.0 | 10.2 | 11.5 |
| 24-29 | 23.3 | 10.6 | 16.5 | 13.0 | 6.5 | 9.1 | 21.7 | 9.8 | 15.2 |
| 30 and older | 12.3 | 16.1 | 14.3 | 16.7 | 11.3 | 13.4 | 13.0 | 15.2 | 14.2 |

The data of Table 3 indicate that nearly sixty percent of the respondents were 21 years of age or younger. Twenty-seven percent were from 22 to 29 years of age and fourteen percent were 30 or older. Males were significantly older than females, and the respondents from public institutions were significantly older than those from the independent institutions.*

* * * * *

TABLE 4: MARITAL STATUS OF RESPONDENTS

Question 3: What is your current marital status?

| Marital Status | Public | | | Independent | | | All | | |
|----------------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 602 | F 682 | T 1,284 | M 108 | F 168 | T 276 | M 710 | F 850 | T 1,560 |
| Not married | 64.5% | 66.9% | 65.7% | 73.1% | 75.6% | 74.6% | 65.8% | 68.6% | 67.3% |
| Married | 35.5 | 33.1 | 34.3 | 26.9 | 24.4 | 25.4 | 34.2 | 31.4 | 32.7 |

Table 4 indicates that nearly one third of the graduates were married. A significantly higher proportion of the public sector graduates were married than of the independent sector graduates. The difference between the responses of males and females was not statistically significant.

* * * * *

*Levels of significance of the differences in responses from males and females and from public institutions and independent institutions are measured by chi-square analysis and presented in Appendix C. In the narrative of this report, differences significant at the 0.01 probability level will be referred to as statistically significant.

TABLE 5: HOME LOCATION WHEN COMPLETING HIGH SCHOOL STUDIES

Question 4: Where did you live when you last attended high school?

| Location | Public | | | Independent | | | All | | |
|----------------------------------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 602 | F 680 | T 1,282 | M 108 | F 168 | T 276 | M 710 | F 848 | T 1,558 |
| Within Indiana | 86.0% | 88.2% | 87.2% | 79.6% | 80.4% | 80.1% | 85.1% | 86.7% | 85.9% |
| Outside Indiana but in U.S.A. | 12.6 | 10.3 | 11.4 | 19.4 | 19.0 | 19.2 | 13.7 | 12.0 | 12.8 |
| Outside U.S.A. | 1.3 | 1.5 | 1.4 | 0.9 | 0.6 | 0.7 | 1.3 | 1.3 | 1.3 |

Eighty-six percent of the graduates had lived in Indiana while completing their high school studies. The proportion of Indiana residents was significantly higher in the public institutions than in the independent. Approximately equal proportions of males and females had lived in Indiana while finishing high school.

* * * * *

TABLE 6: PRIMARY OCCUPATIONS OF RESPONDENTS' PARENTS BY OCCUPATIONAL CATEGORY

Questions 19 & 20: What is (was) your father's (mother's) primary occupation?

| Occupational Category | Fathers' Occupations | | | Mothers' Occupations | | |
|----------------------------------|----------------------|---------------|--------------|----------------------|---------------|--------------|
| | Public 1,266 | Indep. 269 | All 1,535 | Public 1,258 | Indep. 275 | All 1,533 |
| Professional, technical, kindred | 17.9% | 19.3% | 18.1% | 11.4% | 13.8% | 11.9% |
| Managers, officials, proprietors | 12.8 | 13.4 | 12.9 | 2.2 | 1.8 | 2.2 |
| Sales workers | 5.7 | 7.1 | 5.9 | 4.1 | 5.1 | 4.3 |
| Clerical workers | 0.6 | 0.7 | 0.7 | 16.4 | 14.2 | 16.0 |
| Craftsmen, foremen, kindred | 24.0 | 24.5 | 24.1 | 0.8 | 1.1 | 0.8 |
| Operatives | 17.1 | 14.5 | 16.6 | 6.8 | 5.1 | 6.5 |
| Service workers | 3.9 | 3.3 | 3.8 | 8.7 | 7.6 | 8.5 |
| Laborers | 5.7 | 5.2 | 5.6 | 1.6 | 1.5 | 1.6 |
| Farmers, farm workers | 10.6 | 11.2 | 10.7 | 0.2 | 0.4 | 0.2 |
| Military service | 1.7 | 0.7 | 1.6 | 0.0 | 0.0 | 0.0 |
| Housewives | -- | -- | -- | 47.7 | 49.5 | 48.0 |

Table 6 presents the primary occupations, by occupational category, of the respondents' parents. The highest percentage (24 percent) of the respondents' fathers were primarily employed as craftsmen, foremen and kindred. Thirty percent of the fathers fell into the professional, technical, and kindred or the managers, officials, and proprietors categories, the two groupings generally related to high socioeconomic status. An additional seventeen percent of the fathers were classified as operatives and eleven percent as farmers or farm workers, with fewer than ten percent falling into each of the remaining occupational categories.

Nearly half of the graduates indicated that the primary occupation of their mother was that of housewife. An additional sixteen percent of the mothers were in clerical occupations, and twelve percent in professional, technical and kindred occupations.

* * * * *

TABLE 7: FATHERS' EDUCATIONAL ATTAINMENT

Question 17: What is the highest educational level completed by your father?

| Education Levels | Public | | | Independent | | | All | | |
|--------------------------------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 600 | F 682 | T 1,282 | M 108 | F 166 | T 274 | M 708 | F 848 | T 1,556 |
| Less than high school graduate | 31.0% | 27.6% | 29.2% | 24.1% | 28.3% | 26.6% | 29.9% | 27.7% | 28.7% |
| High school grad. | 46.3 | 49.3 | 47.9 | 50.0 | 45.2 | 47.1 | 46.9 | 48.5 | 47.8 |
| Associate degree | 8.0 | 7.0 | 7.5 | 11.1 | 7.2 | 8.8 | 8.5 | 7.1 | 7.7 |
| Bachelor's degree | 5.3 | 10.0 | 7.8 | 6.5 | 9.6 | 8.4 | 5.5 | 9.9 | 7.9 |
| First prof. degree | 1.7 | 2.1 | 1.9 | 0.9 | 3.0 | 2.2 | 1.6 | 2.2 | 1.9 |
| Master's degree | 4.3 | 2.6 | 3.4 | 7.4 | 4.8 | 5.8 | 4.8 | 3.1 | 3.9 |
| Specialist's degree | 1.7 | 0.6 | 1.1 | 0.0 | 0.6 | 0.4 | 1.4 | 0.6 | 1.0 |
| Doctor's degree | 1.7 | 0.9 | 1.2 | 0.0 | 1.2 | 0.7 | 1.4 | 0.9 | 1.2 |

The data of Table 7 indicate that twenty-nine percent of the graduates' fathers had not completed high school studies and an additional 48 percent had not completed a degree beyond the secondary level. Eight percent of the fathers had attained the associate degree, and an equal percentage had received a bachelor's as their highest educational level. An additional eight percent had completed work toward a graduate degree.

* * * * *

TABLE 8: MOTHERS' EDUCATIONAL ATTAINMENT

Question 18: What is the highest educational level completed by your mother?

| Education Level | Public | | | Independent | | | All | | |
|--------------------------------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 602 | F 682 | T 1,284 | M 108 | F 168 | T 276 | M 710 | F 850 | T 1,560 |
| Less than high school graduate | 28.3% | 23.2% | 25.5% | 24.1% | 25.6% | 25.0% | 27.6% | 23.6% | 25.4% |
| High school grad. | 58.5 | 58.4 | 58.4 | 58.3 | 53.6 | 55.4 | 58.5 | 57.4 | 57.9 |
| Associate degree | 6.3 | 9.7 | 8.1 | 12.0 | 10.1 | 10.9 | 7.2 | 9.8 | 8.6 |
| Bachelor's degree | 4.7 | 7.0 | 5.9 | 1.9 | 7.1 | 5.1 | 4.2 | 7.1 | 5.8 |
| First prof. degree | 0.0 | 0.6 | 0.3 | 1.9 | 0.6 | 1.1 | 0.3 | 0.6 | 0.4 |
| Master's degree | 2.0 | 1.2 | 1.6 | 1.9 | 3.0 | 2.5 | 2.0 | 1.5 | 1.7 |
| Specialist's degree | 0.3 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.1 |
| Doctor's degree | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Table 8 represents the highest educational levels completed by the graduates' mothers. Twenty-five percent had not received high school diplomas, and an additional 58 percent had received diplomas but had not completed any postsecondary level degree work. Nine percent of the mothers' highest educational level completed was the associate degree, six percent the bachelor's degree, and an additional two percent had completed graduate degree work.

* * * * *

PART IV

EDUCATIONAL BACKGROUNDS AND FUTURE PLANS FOR EDUCATION

TABLE 9: INTERRUPTION OF FORMAL EDUCATION

Question 5: Since completing your high school studies, have you ever interrupted your formal education for an extended period of time?

| | Public | | | Independent | | | All | | |
|-------------|--------|-------|-------|-------------|-------|-------|-------|-------|-------|
| | M | F | T | M | F | T | M | F | T |
| Interrupted | 598 | 680 | 1,278 | 108 | 168 | 276 | 706 | 848 | 1,554 |
| Yes | 45.5% | 36.5% | 40.7% | 43.5% | 32.7% | 37.0% | 45.2% | 35.7% | 40.0% |
| No | 54.5 | 63.5 | 59.3 | 56.5 | 67.3 | 63.0 | 54.8 | 64.3 | 60.0 |

The data of Table 9 indicate that forty percent of the respondents had interrupted their formal education for an extended period of time since completing high school. Significantly more males than females had experienced such an interruption. The difference between the responses from public and independent institutions was not significant.

* * * * *

TABLE 10: GRADE AVERAGES - OVERALL AND MAJOR FIELD OF STUDY

Questions 6 and 7: What is your approximate overall (major field of study) average grade in college?

| | Public | | | Independent | | | All | | |
|---------------|--------|-------|-------|-------------|-------|-------|-------|-------|-------|
| | M | F | T | M | F | T | M | F | T |
| Grade Average | 602 | 680 | 1,282 | 106 | 167 | 273 | 708 | 847 | 1,555 |
| Overall | | | | | | | | | |
| A- to A+ | 19.3% | 16.8% | 17.9% | 9.4% | 16.2% | 13.6% | 17.8% | 16.6% | 17.2% |
| B- to B+ | 55.5 | 58.8 | 57.3 | 55.7 | 52.1 | 53.5 | 55.5 | 57.5 | 56.6 |
| C+ or lower | 25.3 | 24.4 | 24.8 | 34.9 | 31.7 | 33.0 | 26.7 | 25.8 | 26.3 |
| Major Field | | | | | | | | | |
| A- to A+ | 41.3 | 25.8 | 33.0 | 24.3 | 18.6 | 20.8 | 38.7 | 24.4 | 30.9 |
| B- to B+ | 47.3 | 54.3 | 51.0 | 63.6 | 54.5 | 58.0 | 49.8 | 54.3 | 52.3 |
| C+ or lower | 11.4 | 19.9 | 16.0 | 12.1 | 26.9 | 21.2 | 11.5 | 21.3 | 16.9 |

Seventeen percent of the respondents reported overall grade averages of A- or higher. An additional 57 percent reported averages of B- to B+, and the remaining 26 percent indicated that their averages were lower than B-. Males and females did not differ significantly regarding their overall grade averages.

Grades were noticeably higher for the graduates' major fields of study, where 31 percent reported averages of A- or above. Fifty-two percent indicated that their grade average in their major was B- to B+ and only seventeen percent had averages falling below B-. The reported major field grade averages for males were much higher than those for females, with 39 percent of the males reporting A averages compared to 24 percent of the females.

* * * * *

TABLE 11: FIRST DECLARED AND CURRENT MAJOR FIELDS OF STUDY

Questions 8 & 9: What was your first (is your current) major field of study?

| Field of Study | First Declared Major | | | | | | Current Major | | | | | |
|---|----------------------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|
| | M n | M % | F n | F % | T n | T % | M n | M % | F n | F % | T n | T % |
| Business and Commerce Technologies | 127 | 17.9 | 170 | 20.0 | 297 | 19.0 | 152 | 21.4 | 175 | 20.6 | 327 | 20.9 |
| Business and commerce tech., general | 47 | 6.6 | 9 | 1.1 | 56 | 3.6 | 47 | 6.6 | 15 | 1.8 | 62 | 4.0 |
| Accounting | 47 | 6.6 | 47 | 5.5 | 94 | 6.0 | 52 | 7.3 | 47 | 5.5 | 99 | 6.3 |
| Banking and finance | 4 | 0.6 | 1 | 0.1 | 5 | 0.3 | 2 | 0.3 | 2 | 0.2 | 4 | 0.3 |
| Marketing, distribution, purchasing | 15 | 2.1 | 7 | 0.8 | 22 | 1.4 | 20 | 2.8 | 7 | 0.8 | 27 | 1.0 |
| Secretarial technologies | 0 | 0.0 | 98 | 11.5 | 98 | 6.3 | 0 | 0.0 | 97 | 11.4 | 97 | 6.2 |
| Other business and commerce | 14 | 2.0 | 8 | 0.9 | 22 | 1.4 | 31 | 4.4 | 7 | 0.8 | 38 | 2.4 |
| Health Service and Paramedical Technologies | 26 | 3.7 | 425 | 50.0 | 451 | 28.9 | 46 | 6.5 | 542 | 63.8 | 588 | 37.6 |
| Dental health technologies | 6 | 0.8 | 22 | 2.6 | 28 | 1.8 | 6 | 0.8 | 38 | 4.5 | 44 | 2.8 |
| Medical laboratory technologies | 0 | 0.0 | 13 | 1.5 | 13 | 0.8 | 1 | 0.1 | 12 | 1.4 | 13 | 0.8 |
| Nursing | 10 | 1.4 | 357 | 42.0 | 367 | 23.5 | 27 | 3.8 | 446 | 52.5 | 473 | 30.3 |
| Medical therapy technologies | 4 | 0.6 | 4 | 0.5 | 8 | 0.5 | 6 | 0.8 | 11 | 1.3 | 17 | 1.1 |
| Other allied health | 6 | 0.8 | 29 | 3.4 | 35 | 2.2 | 6 | 0.8 | 35 | 4.1 | 41 | 2.6 |
| Mechanical and Engineering Technologies | 305 | 43.0 | 13 | 1.5 | 320 | 20.5 | 358 | 50.4 | 16 | 1.9 | 376 | 24.1 |
| Aeronautical and aviation technologies | 36 | 5.1 | 0 | 0.0 | 36 | 2.3 | 44 | 6.2 | 2 | 0.2 | 46 | 2.9 |
| Graphics and drafting technologies | 49 | 6.9 | 8 | 0.9 | 57 | 3.6 | 50 | 7.0 | 10 | 1.2 | 60 | 3.8 |
| Automotive technologies | 38 | 5.4 | 0 | 0.0 | 38 | 2.4 | 36 | 5.1 | 0 | 0.0 | 36 | 2.3 |
| Electronics and machine technologies | 107 | 15.1 | 2 | 0.2 | 109 | 7.0 | 127 | 17.9 | 2 | 0.2 | 129 | 8.3 |
| Other mechanical and engineering | 75 | 10.6 | 3 | 0.4 | 80 | 5.1 | 101 | 14.2 | 2 | 0.2 | 105 | 6.7 |
| Miscellaneous Associate Degree Programs | 104 | 14.6 | 64 | 7.5 | 168 | 10.8 | 154 | 21.7 | 115 | 13.5 | 269 | 17.2 |
| Data processing technologies | 37 | 5.2 | 20 | 2.4 | 57 | 3.6 | 27 | 3.8 | 22 | 2.6 | 49 | 3.1 |
| Natural science technologies | 0 | 0.0 | 2 | 0.2 | 2 | 0.1 | 5 | 0.7 | 1 | 0.1 | 6 | 0.4 |
| Public service-related technologies | 21 | 3.0 | 13 | 1.5 | 34 | 2.2 | 35 | 4.9 | 18 | 2.1 | 53 | 3.4 |
| Other associate degree programs | 46 | 6.5 | 29 | 3.4 | 75 | 4.8 | 87 | 12.3 | 74 | 8.7 | 161 | 10.3 |
| Bachelor's level programs | 145 | 20.4 | 172 | 20.2 | 317 | 20.3 | -- | -- | -- | -- | -- | -- |
| No response | 3 | 0.4 | 6 | 0.7 | 9 | 0.6 | 0 | 0.0 | 2 | 0.2 | 2 | 0.1 |
| Total | 710 | 100.0 | 850 | 100.0 | 1,562 | 100.0 | 710 | 100.0 | 850 | 100.0 | 1,562 | 100.0 |

All four of the general associate degree areas of study witnessed increases in their numbers of majors when the first declared majors are compared with the current majors of the respondents. This is due to the fact that twenty percent of the graduates had initially entered bachelor's degree programs and had later changed to the associate level.

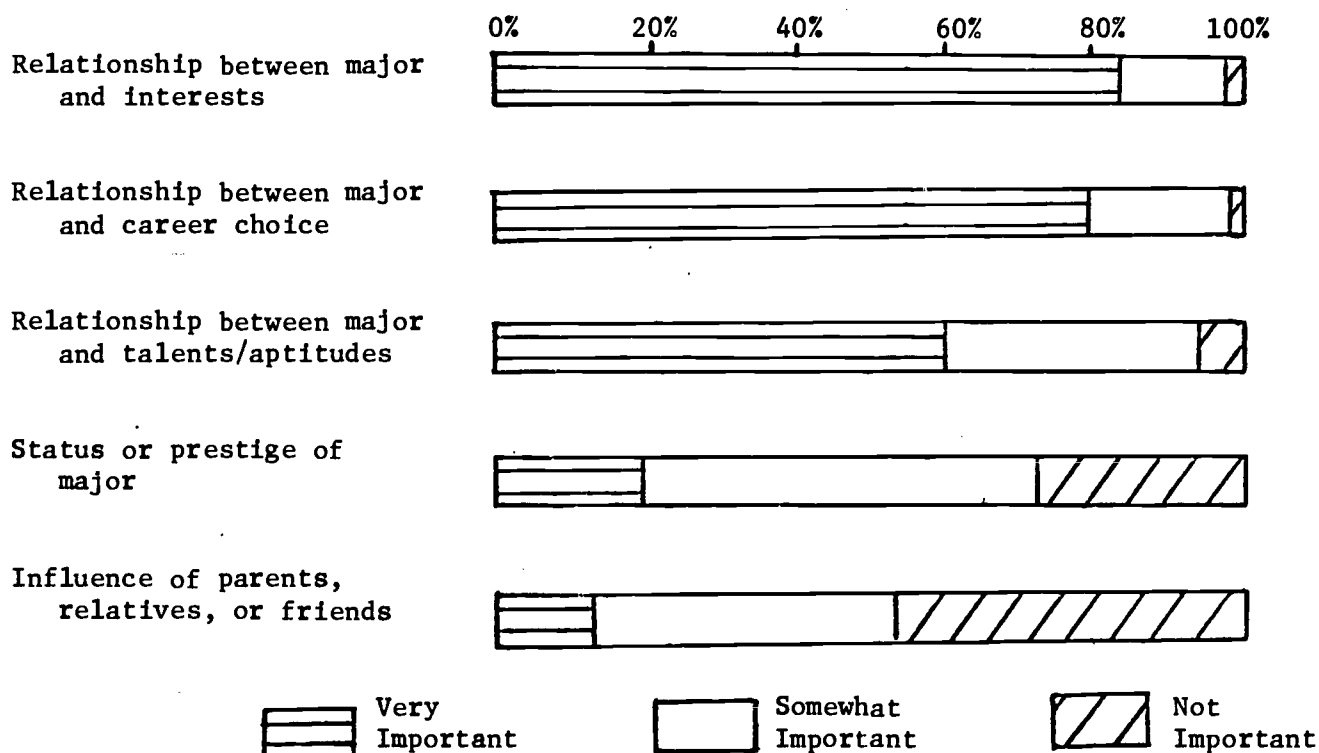
The health service and paramedical technologies claimed the highest percentage of current majors (38 percent) and nursing was the specific field of study with the most majors (30 percent). Fields in the mechanical and engineering technologies were the current majors of 24 percent of the respondents while 21 percent were in business and commerce technologies and seventeen percent were in miscellaneous associate degree programs, which include data processing technologies, natural science technologies, and the service-related technologies.

The sexes differed greatly in their current majors. Sixty-four percent of the females were in the area of health service and paramedical technologies compared to only seven percent of the males, while half of the males and only two percent of the females were in mechanical and engineering technologies. Approximately 21 percent of the respondents of each sex were in business and commerce technologies, and 22 percent of the males and fourteen percent of the females were in the miscellaneous associate degree programs category.

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FIGURE 1: IMPORTANCE OF FACTORS IN SELECTING MAJOR FIELDS OF STUDY

Questions 11-15: *How important has each of the following been to you in the selection of your present degree program or major field of study?*



The relationships between the major field of study and respondents' interests and career choices were indicated as the most important factors considered in choosing a major. About sixty percent also indicated that the relationship between their major fields and their talents/aptitudes was very important. The status or prestige of the major field and the influence of parents, relatives, or friends were each at least somewhat important to a majority of the graduates, but these factors appear to have had much less importance than the initial three factors.

* * * * *

TABLE 12: EXPECTED FUTURE MAJOR FIELDS OF STUDY

Question 10: What will be your future major field of study?

| Fields of Study | Males | | Females | | Total | |
|--|-------|-------|---------|-------|-------|-------|
| | n | % | n | % | n | % |
| Business/management | 149 | 30.7 | 47 | 8.4 | 196 | 18.8 |
| Sciences | 8 | 1.6 | 8 | 1.4 | 16 | 1.5 |
| Biological sciences | 6 | 1.2 | 6 | 1.1 | 12 | 1.2 |
| Physical sciences | 2 | 0.4 | 2 | 0.4 | 4 | 0.4 |
| Engineering | 139 | 28.7 | 7 | 1.3 | 146 | 14.0 |
| Liberal Arts | 36 | 7.4 | 10 | 1.8 | 46 | 4.4 |
| Architecture, environmental design | 14 | 2.9 | 0 | 0.0 | 14 | 1.3 |
| Communications, journalism | 0 | 0.0 | 2 | 0.4 | 2 | 0.2 |
| Fine & applied arts | 15 | 3.1 | 6 | 1.1 | 21 | 2.0 |
| Foreign languages | 4 | 0.8 | 0 | 0.0 | 4 | 0.4 |
| Letters (Eng., folklore, linguistics, literature, speech, philo, religion) | 3 | 0.6 | 2 | 0.4 | 5 | 0.5 |
| Social Sciences | 41 | 8.5 | 43 | 7.7 | 84 | 8.2 |
| Economics | 4 | 0.8 | 0 | 0.0 | 4 | 0.4 |
| History | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Home economics | 0 | 0.0 | 6 | 1.1 | 6 | 0.6 |
| Library science | 1 | 0.2 | 2 | 0.4 | 3 | 0.3 |
| Political science/government | 5 | 1.0 | 0 | 0.0 | 5 | 0.5 |
| Psychology | 10 | 2.1 | 19 | 3.4 | 29 | 2.8 |
| Public affairs & services | 16 | 3.3 | 13 | 2.3 | 29 | 2.8 |
| Sociology | 5 | 1.0 | 3 | 0.5 | 8 | 0.8 |
| Other (anthrop., geog., internat'l relations) | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Math/Computer Sciences | 17 | 3.5 | 19 | 3.4 | 36 | 3.5 |
| Math/statistics | 0 | 0.0 | 5 | 0.9 | 5 | 0.5 |
| Computer & information sciences | 17 | 3.5 | 14 | 2.5 | 31 | 3.0 |
| Education | 29 | 6.0 | 37 | 6.6 | 66 | 6.3 |
| Elem. & pre-elem. education | 2 | 0.4 | 11 | 2.0 | 13 | 1.2 |
| Secondary education | 13 | 2.7 | 3 | 0.5 | 16 | 1.5 |
| Special education | 2 | 0.4 | 6 | 1.1 | 8 | 0.8 |
| Health & physical education | 4 | 0.8 | 4 | 0.7 | 8 | 0.8 |
| Education administration | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Counseling & guidance | 0 | 0.0 | 2 | 0.4 | 2 | 0.2 |
| Other education fields | 8 | 1.6 | 11 | 2.0 | 19 | 1.8 |
| Health | 34 | 7.0 | 378 | 67.9 | 412 | 39.5 |
| Allied health | 5 | 1.0 | 9 | 1.6 | 14 | 1.3 |
| Dentistry | 0 | 0.0 | 7 | 1.3 | 7 | 0.7 |
| Nursing | 19 | 3.9 | 335 | 60.1 | 354 | 34.0 |
| Optometry | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Pharmacy | 2 | 0.4 | 2 | 0.4 | 4 | 0.4 |
| Physician | 0 | 0.0 | 3 | 0.5 | 3 | 0.3 |
| Therapy(occup. & physical) | 3 | 0.6 | 6 | 1.1 | 9 | 0.9 |
| Veterinary | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other health | 5 | 1.0 | 16 | 2.9 | 21 | 2.0 |
| Other Majors | 32 | 6.6 | 8 | 1.4 | 40 | 3.8 |
| Agric./nat'l resources/forestry | 4 | 0.8 | 0 | 0.0 | 4 | 0.4 |
| Area studies | 2 | 0.4 | 0 | 0.0 | 2 | 0.2 |
| Interdisciplinary studies | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Law/pre-law | 20 | 4.1 | 5 | 0.9 | 25 | 2.4 |
| Double major | 6 | 1.2 | 3 | 0.5 | 9 | 0.9 |
| Total | 485 | 100.0 | 557 | 100.0 | 1,042 | 100.0 |

Table 12 represents the expected future major fields of study of the graduates. More than 1,000 or approximately two-thirds of all the respondents, indicated choices in this regard. Of these, forty percent, including 68 percent of the females, expected to pursue further education in health-related fields. Nineteen percent of the graduates, including 31 percent of the males, expected to study business and fourteen percent including 29 percent of the males, expected to study engineering. The social sciences were the future choice of eight percent of the respondents, while six percent expected to pursue studies in education, four percent in the liberal arts, four percent in mathematics/computer science, two percent in the sciences, and four percent in other areas. It appears that those among the associate degree recipients who plan to pursue further formal education generally choose fields of study, such as health, business, and engineering, which relate closely to specific occupations.

* * * * *

TABLE 13: HIGHEST DEGREE EXPECTED TO COMPLETE

Question 16: What is the highest level of education you expect to complete?

| Education Level | Public | | | Independent | | | All | | |
|-----------------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 600 | F 680 | T 1,280 | M 108 | F 168 | T 276 | M 708 | F 848 | T 1,536 |
| Associate | 30.7% | 33.5% | 32.2% | 19.4% | 33.3% | 27.9% | 29.0% | 33.5% | 31.4% |
| Bachelor's | 46.7 | 47.9 | 47.3 | 52.8 | 47.0 | 49.3 | 47.6 | 47.8 | 47.7 |
| First prof. | 1.3 | 1.2 | 1.2 | 7.4 | 1.2 | 3.6 | 2.3 | 1.2 | 1.7 |
| Master's | 18.0 | 15.3 | 16.6 | 19.4 | 14.3 | 16.3 | 18.2 | 15.1 | 16.5 |
| Specialist's | 0.0 | 0.3 | 0.2 | 0.0 | 2.4 | 1.4 | 0.0 | 0.7 | 0.4 |
| Doctor's | 3.3 | 1.8 | 2.5 | 0.9 | 1.8 | 1.4 | 3.0 | 1.8 | 2.3 |

Table 13 reflects the future educational goals of the graduates. Only 31 percent of the respondents expected that the associate degree was the highest educational level that they would complete. Nearly half (48 percent) expected that the bachelor's would be their highest degree, and an additional 21 percent expected to complete graduate level degrees, most of them indicating the master's level. Males appeared to have somewhat higher degree aspirations than females, and the graduates of independent institutions had higher aspirations than those of the public sector.

* * * * *

PART V

OCCUPATION AND CAREER PLANS AND ASPIRATIONS

FIGURE 2: EXPECTED FUTURE ACTIVITIES

Questions 54-56: Which one of the five choices best describes what you expect to be your primary activity this fall, about five years from now, about ten years from now?

Figure 2 represents the expected primary activities of the graduates for next fall, five years hence, and ten years hence.

Approximately sixty percent of the respondents expected to be working in full-time career jobs in the fall subsequent to their graduation. For five years hence this figure rises to 83 percent and, ten years hence, 87 percent expected to occupy full-time career jobs.

Eighteen percent of the respondents expected to be employed at full-time non-career jobs in the fall. For five years hence this figure drops to four percent, and decreases to two percent for ten years in the future.

Eleven percent of the graduates expected to be engaged in further formal education this fall. Five years hence eight percent listed further education as their primary activity, and for ten years hence this figure drops to three percent.

Ten percent of the respondents did not expect to be in the work force in the fall after receiving the associate degree. For five years hence this figure drops to four percent, then rises to eight percent of the respondents ten years hence as more females expect to marry and leave the work force.

One percent of the respondents expected to be in the military this fall and five years hence, with this figure declining to 0.3 percent for ten years from now.

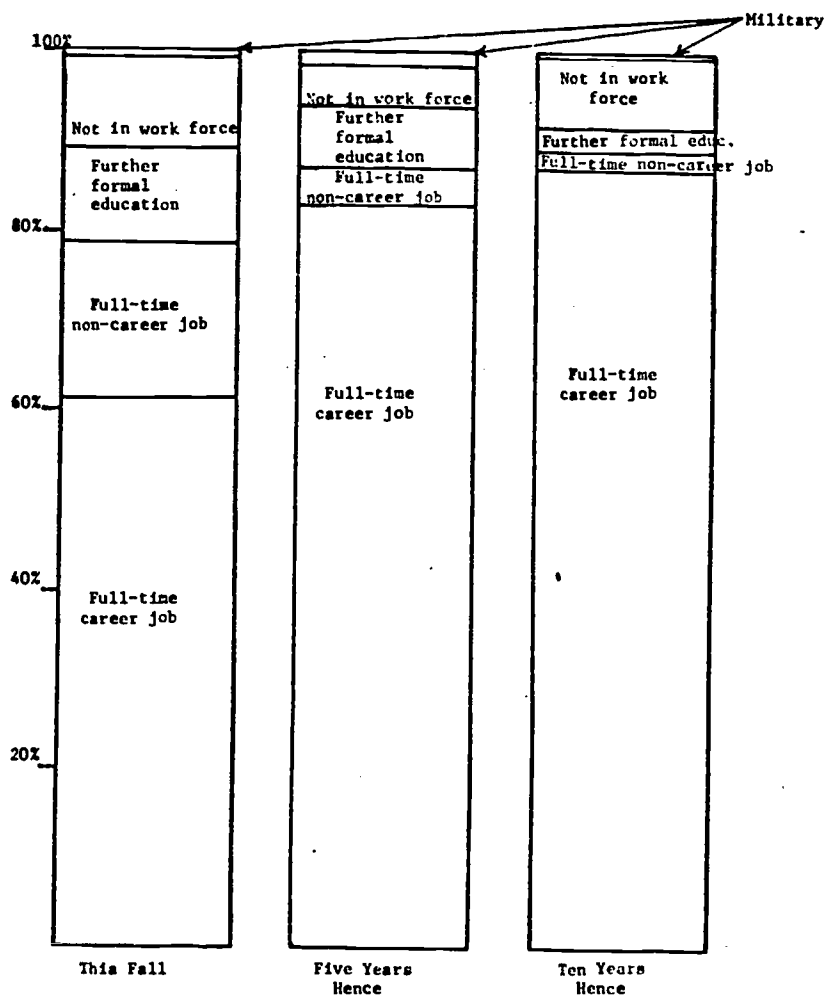


TABLE 14: EXPECTED FUTURE ACTIVITIES

Questions 54-56:

| Activity | This Fall | | | | | | 5 Years Hence | | | | | | Ten Years Hence | | | | | |
|------------------------|-----------|-------|-------|--------|-------|-------|---------------|-------|-------|--------|-------|-------|-----------------|-------|-------|-------|-------|-------|
| | Public | | | Indep. | | | All | | | Public | | | Indep. | | | All | | |
| | M | F | T | M | F | T | M | F | T | M | F | T | M | F | T | M | F | T |
| | 598 | 680 | 1,554 | 108 | 168 | 706 | 848 | 1,554 | 108 | 168 | 706 | 850 | 1,558 | 598 | 678 | 706 | 845 | 1,551 |
| Full-time career job | 47.5% | 71.2% | 52.8% | 74.4% | 48.3% | 71.8% | 61.1% | 88.3% | 78.0% | 88.0% | 80.4% | 88.2% | 78.5% | 94.6% | 79.9% | 98.1% | 78.4% | 86.7% |
| Full-time non-car. job | 21.7 | 13.8 | 30.6 | 11.3 | 23.1 | 13.3 | 17.8 | 5.4 | 2.6 | 6.5 | 2.4 | 5.5 | 2.6 | 3.0 | 2.1 | 0.9 | 0.6 | 2.2 |
| Military service | 1.0 | 0.3 | 1.9 | 0.0 | 1.1 | 0.2 | 0.6 | 0.7 | 1.2 | 0.0 | 1.2 | 0.6 | 1.2 | 0.3 | 0.3 | 0.0 | 0.0 | 0.3 |
| Grad. or prof. study | 13.7 | 9.1 | 9.3 | 7.7 | 13.0 | 8.8 | 10.7 | 5.0 | 11.4 | 4.6 | 6.0 | 5.0 | 10.4 | 1.3 | 3.5 | 0.0 | 6.0 | 2.7 |
| Not in work force | 16.1 | 5.6 | 5.6 | 6.5 | 14.4 | 5.8 | 9.7 | 0.7 | 6.7 | 0.9 | 10.1 | 0.7 | 7.4 | 0.7 | 14.2 | 0.9 | 15.0 | 8.1 |

Sixty-one percent of the graduates expected to be employed in career jobs in the fall subsequent to their graduation, with an additional eighteen percent expecting to be working at non-career jobs. Eleven percent indicated that they expected to be engaged primarily in further study, while ten percent did not expect to be in the work force and 0.6 percent planned to enter military service. More females than males expected to be working at career jobs, while proportionately more males expected to be engaged in non-career jobs, further study, or outside the work force.

Eighty-three percent expected to be working in career jobs five years hence with another four percent anticipating non-career jobs. Eight percent expected to be engaged in further study at that time with one percent expecting to be in the military and four percent expecting to be outside the labor force. Males and females again differed greatly. Higher percentages of males expected to be employed at career jobs or non-career jobs, while more females anticipated further study or being outside the work force.

Ten years hence 87 percent of the respondents expected to be engaged in career jobs, including 95 percent of the males and eighty percent of the females. Fourteen percent of the females expected to be outside of the work force and four percent anticipated being engaged in further study.

* * * * *

TABLE 15: PRIMARY FALL ACTIVITY BY AREA OF STUDY

Questions 9 & 54:

| Activity | Business & Commerce Tech. | | Health Tech. | | Mechanical Engineering Tech. | | Miscellaneous Associate Degrees * | | Total | |
|-------------------|---------------------------|------|--------------|------|------------------------------|------|-----------------------------------|------|-------|------|
| | n | % | n | % | n | % | n | % | n | % |
| Career job | 186 | 57.2 | 477 | 81.4 | 176 | 47.1 | 109 | 40.5 | 948 | 61.1 |
| Non-career job | 91 | 28.0 | 51 | 8.7 | 81 | 21.7 | 55 | 20.4 | 278 | 17.8 |
| Military service | 1 | 0.3 | 3 | 0.5 | 4 | 1.1 | 2 | 0.7 | 10 | 0.6 |
| Further study | 20 | 6.2 | 42 | 7.2 | 59 | 15.8 | 46 | 17.1 | 167 | 10.7 |
| Not in work force | 27 | 8.3 | 13 | 2.2 | 54 | 14.4 | 57 | 21.2 | 151 | 9.7 |

* Includes data processing technologies, natural science technologies, public service related technologies, and other associate degree programs

Table 15 indicates that the expected primary fall activity of the graduates differed greatly when their major areas of study were taken into account. Sixty-one percent of the respondents expected to be employed in career jobs. However, this proportion ranged from 81 percent in the health technologies area to 41 percent in the miscellaneous area. Eighteen percent expected to be working at non-career jobs, ranging from 28 percent in the business and commerce technologies to nine percent in the health technologies. Overall, eleven percent of the respondents expected to be engaged in further study, ranging from seventeen percent in the miscellaneous area to six percent among the business and commerce graduates. Whereas only two percent of the health technologies graduates expected to be outside the work force, 21 percent of the miscellaneous area graduates indicated such plans. One percent or less of the respondents of all areas anticipated being in the military.

* * * * *

TABLE 16: DEFINITENESS OF PLANS

Questions 57-59: How definite do you consider the expectations marked in questions 54-56 (concerning primary future activities)?

| Degree of Definiteness | Public | | | Independent | | | All | | |
|------------------------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 596 | F 682 | T 1,278 | M 108 | F 168 | T 276 | M 704 | F 850 | T 1,554 |
| This Fall | | | | | | | | | |
| Very definite | 54.0% | 66.8% | 60.8% | 51.9% | 67.3% | 61.2% | 53.7% | 66.9% | 60.9% |
| Somewhat definite | 30.5 | 21.2 | 25.5 | 31.5 | 17.3 | 22.8 | 30.7 | 20.4 | 25.1 |
| Highly indefinite | 15.4 | 12.1 | 13.6 | 16.7 | 15.5 | 15.9 | 15.6 | 12.7 | 14.0 |
| 5 Years Hence | | | | | | | | | |
| Very definite | 46.0 | 34.3 | 39.7 | 39.8 | 32.7 | 35.5 | 45.0 | 34.0 | 39.0 |
| Somewhat definite | 40.9 | 56.0 | 49.0 | 44.4 | 52.4 | 49.3 | 41.5 | 55.3 | 49.0 |
| Highly indefinite | 13.1 | 9.7 | 11.3 | 15.7 | 14.9 | 15.2 | 13.5 | 10.7 | 12.0 |
| 10 Years Hence | | | | | | | | | |
| Very definite | 49.5 | 32.0 | 40.2 | 43.5 | 26.2 | 33.0 | 48.6 | 30.8 | 38.9 |
| Somewhat definite | 33.1 | 50.4 | 42.3 | 35.2 | 54.2 | 46.7 | 33.4 | 51.2 | 43.1 |
| Highly indefinite | 17.4 | 17.6 | 17.5 | 21.3 | 19.6 | 20.3 | 18.0 | 18.0 | 18.0 |

A large majority of the graduates were very definite concerning their expected primary activity for the fall. Two-thirds of the females and slightly more than half of the males indicated that their plans were very definite. One quarter of the respondents claimed that their plans were somewhat definite, and fourteen percent noted that their plans for the fall were highly indefinite.

Primary activities for five years hence were less certain as 39 percent of the respondents were very definite about their plans, 49 percent were somewhat definite, and twelve percent were highly indefinite. In this case, males were much more certain of their plans than were females.

Again, 39 percent of the respondents were very definite about their plans for ten years hence. However, the difference between males and females had grown, with 49 percent of the males very definite compared to 31 percent of the females.

It is noteworthy that nearly as many males were very definite about their primary activities ten years hence as about their fall plans, while far fewer females were very definite about their long-range plans than their fall plans.

Forty-three percent of the respondents were somewhat definite about their plans ten years hence and eighteen percent of both males and females were highly indefinite concerning these expectations.

* * * * *

TABLE 17: TYPE OF ACTIVITY BY DEGREE OF DEFINITENESS OF ACTIVITY

Questions 54 and 57, 55 and 58, 56 and 59 :

| Degree of Definiteness | Career Job | | Non-career Job | | Military service | | Further study | | Not in work force | | Total | |
|---------------------------|---------------|------|-------------------|------|---------------------|-------|------------------|------|----------------------|------|-------|------|
| | n | % | n | % | n | % | n | % | n | % | n | % |
| This Fall | | | | | | | | | | | | |
| Very definite | 611 | 64.3 | 132 | 47.5 | 5 | 50.0 | 112 | 67.9 | 87 | 57.6 | 947 | 60.9 |
| Somewhat def. | 218 | 22.9 | 108 | 38.8 | 2 | 20.0 | 26 | 15.8 | 35 | 23.2 | 389 | 25.0 |
| Highly indef. | 121 | 12.7 | 38 | 13.7 | 3 | 30.0 | 27 | 16.4 | 29 | 19.2 | 218 | 14.0 |
| 5 Years Hence | | | | | | | | | | | | |
| Very definite | 560 | 43.4 | 6 | 9.8 | 0 | 0.0 | 35 | 28.5 | 5 | 7.4 | 606 | 38.9 |
| Somewhat def. | 582 | 45.1 | 44 | 72.1 | 12 | 85.7 | 73 | 59.3 | 53 | 77.9 | 764 | 49.1 |
| Highly indef. | 148 | 11.5 | 11 | 18.0 | 2 | 14.3 | 15 | 12.2 | 10 | 14.7 | 186 | 12.0 |
| 10 Years Hence | | | | | | | | | | | | |
| Very definite | 572 | 42.5 | 6 | 17.6 | 0 | 0.0 | 2 | 4.8 | 21 | 16.7 | 601 | 38.7 |
| Somewhat def. | 547 | 40.7 | 17 | 50.0 | 4 | 100.0 | 28 | 66.7 | 75 | 59.5 | 671 | 43.3 |
| Highly indef. | 226 | 16.8 | 11 | 32.4 | 0 | 0.0 | 12 | 28.6 | 30 | 23.8 | 279 | 18.0 |

The degree to which the graduates were definite about their future activities appears to be related to the type of activity they anticipate. For the fall, those planning either further study or career jobs were the most definite, and the least definite were those planning on working at non-career jobs or being outside the work force. For five years hence, those planning on being employed at career jobs were clearly the most definite while non-career job, military service, and being outside the work force were all approximately equivalent in being much less definite. For ten years hence, career job is still, by far, the activity about which respondents were most certain, while further study elicited the least definite responses.

* * * * *

TABLE 18: OCCUPATION AND CAREER CHOICES OF RESPONDENTS

Questions 21-23: In which occupation do you expect to be working next fall, five years from now, long-term career?

| Occupations and Careers | Next Fall | | 5 Years Hence | | Long-Term Career | |
|---|-----------|------|---------------|------|------------------|------|
| | n | % | n | % | n | % |
| Professional, Technical, & Kindred | 876 | 56.8 | 1,101 | 71.0 | 1,158 | 74.5 |
| Engineers | 12 | 0.8 | 61 | 3.9 | 65 | 4.2 |
| Life scientists | 2 | 0.1 | 6 | 0.4 | 7 | 0.5 |
| Physical scientists | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Math specialists | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Medical workers | 465 | 30.1 | 446 | 28.8 | 448 | 28.8 |
| Dentists | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Optometrists | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Pharmacists | 0 | 0.0 | 2 | 0.1 | 2 | 0.1 |
| Physicians/surgeons | 0 | 0.0 | 0 | 0.0 | 5 | 0.3 |
| RNs | 451 | 29.2 | 427 | 27.5 | 417 | 26.8 |
| Therapists | 14 | 0.9 | 12 | 0.8 | 18 | 1.2 |
| Veterinarians | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other medical workers | 0 | 0.0 | 5 | 0.3 | 6 | 0.4 |
| Technicians (health) | 83 | 5.4 | 66 | 4.3 | 76 | 4.9 |
| Clinical/medical lab technicians | 14 | 0.9 | 9 | 0.6 | 11 | 0.7 |
| Dental hygienists/lab technicians | 42 | 2.7 | 36 | 2.3 | 42 | 2.7 |
| LPNs | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Therapy technicians | 4 | 0.3 | 6 | 0.4 | 6 | 0.4 |
| Other health technicians | 23 | 1.5 | 15 | 1.0 | 17 | 1.1 |
| Technicians (science & engineering) | 89 | 5.7 | 99 | 6.4 | 94 | 6.0 |
| Science technicians | 2 | 0.1 | 7 | 0.5 | 13 | 0.8 |
| Engineering technicians | 87 | 5.6 | 92 | 5.9 | 81 | 5.2 |
| Technicians (other) | 72 | 4.7 | 76 | 4.9 | 73 | 4.7 |
| Aviation technicians | 20 | 1.3 | 37 | 2.3 | 38 | 2.4 |
| Other technicians, nec | 52 | 3.4 | 40 | 2.6 | 35 | 2.3 |
| Computer specialists | 36 | 2.3 | 53 | 3.4 | 57 | 3.7 |
| Psychologists | 0 | 0.0 | 7 | 0.5 | 20 | 1.3 |
| Social scientists | 2 | 0.1 | 6 | 0.4 | 6 | 0.4 |
| Education professions | 16 | 1.0 | 95 | 6.1 | 103 | 6.6 |
| Elem. & pre-school teachers | 2 | 0.1 | 15 | 1.0 | 17 | 1.1 |
| Secondary school teachers | 1 | 0.1 | 22 | 1.4 | 25 | 1.6 |
| College teachers | 0 | 0.0 | 25 | 1.6 | 30 | 1.9 |
| Special ed. professions | 8 | 0.5 | 17 | 1.1 | 11 | 0.7 |
| School counselors | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Other educ. professions | 3 | 0.2 | 16 | 1.0 | 20 | 1.3 |
| Writers, artists, entertainers | 29 | 1.8 | 49 | 3.2 | 54 | 3.5 |
| Writers & kindred | 2 | 0.1 | 5 | 0.3 | 9 | 0.6 |
| Artists & entertainers | 27 | 1.7 | 44 | 2.8 | 45 | 2.9 |
| Other prof. technical, & kindred | 70 | 4.5 | 137 | 8.8 | 155 | 10.0 |
| Accountants & auditors | 54 | 3.5 | 83 | 5.4 | 81 | 5.2 |
| Architects | 2 | 0.1 | 10 | 0.6 | 18 | 1.2 |
| Clergy & kindred | 2 | 0.1 | 3 | 0.2 | 1 | 0.1 |
| Lawyers & judges | 0 | 0.0 | 6 | 0.4 | 15 | 1.0 |
| Librarian, curators, archivists | 5 | 0.3 | 3 | 0.2 | 6 | 0.4 |
| Social workers | 2 | 0.1 | 15 | 1.0 | 18 | 1.2 |
| Other | 5 | 0.3 | 17 | 1.1 | 16 | 1.0 |
| Managers, Officials, & Proprietors | 67 | 4.3 | 139 | 9.0 | 140 | 9.0 |
| Buyers, sales, loan managers | 16 | 1.0 | 38 | 2.5 | 40 | 2.6 |
| Bank & financial managers | 5 | 0.3 | 9 | 0.6 | 8 | 0.5 |
| Buyers | 8 | 0.5 | 12 | 0.8 | 12 | 0.8 |
| Sales managers | 3 | 0.2 | 17 | 1.1 | 20 | 1.3 |
| Administrators & public inspectors | 12 | 0.8 | 19 | 1.2 | 23 | 1.5 |
| Health administrators | 0 | 0.0 | 4 | 0.3 | 7 | 0.5 |
| School administrators | 0 | 0.0 | 1 | 0.1 | 1 | 0.1 |
| Other administrators | 10 | 0.6 | 14 | 0.9 | 15 | 1.0 |
| Inspectors, public | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Other managers, officials & proprietors | 39 | 2.5 | 82 | 5.3 | 77 | 5.0 |
| Office managers, nec | 20 | 1.3 | 43 | 2.8 | 39 | 2.5 |
| Other managers & administrators | 19 | 1.2 | 39 | 2.5 | 38 | 2.4 |
| Sales Workers | 34 | 2.2 | 19 | 1.2 | 21 | 1.4 |
| Insurance agents & brokers | 2 | 0.1 | 3 | 0.2 | 3 | 0.2 |
| Real estate agents & brokers | 6 | 0.4 | 3 | 0.2 | 5 | 0.3 |
| Stock & bond sales | 0 | 0.0 | 2 | 0.1 | 3 | 0.2 |
| Sales clerk - retail | 15 | 1.0 | 4 | 0.3 | 0 | 0.0 |
| Other sales personnel | 11 | 0.7 | 7 | 0.5 | 10 | 0.6 |

TABLE 18: (continued)

| Occupations and Careers | Next Fall | | 5 Years Hence | | Long-Term Career | |
|--------------------------------------|-----------|-------|---------------|-------|------------------|-------|
| | n | % | n | % | n | % |
| Clerical Workers | 151 | 9.8 | 94 | 6.1 | 94 | 6.0 |
| Secretaries, stenographers, typists | 91 | 5.9 | 74 | 4.8 | 78 | 5.0 |
| Secretaries, & stenographers | 88 | 5.7 | 74 | 4.8 | 78 | 5.0 |
| Typists | 3 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Office machine operators | 12 | 0.8 | 6 | 0.4 | 6 | 0.4 |
| Keypunch & computer equipment | 6 | 0.4 | 4 | 0.3 | 0 | 0.0 |
| Other | 6 | 0.4 | 2 | 0.1 | 6 | 0.4 |
| Other clerical | 48 | 3.1 | 14 | 0.9 | 10 | 0.6 |
| Bookkeepers | 25 | 1.6 | 5 | 0.3 | 6 | 0.4 |
| Cashiers | 4 | 0.3 | 2 | 0.1 | 0 | 0.0 |
| Other | 19 | 1.2 | 7 | 0.5 | 4 | 0.3 |
| Craftsmen, Foremen, & Kindred | 98 | 6.4 | 81 | 5.2 | 78 | 5.0 |
| Construction craftsmen | 22 | 1.4 | 10 | 0.6 | 4 | 0.3 |
| Construction machine operator | 4 | 0.3 | 2 | 0.1 | 0 | 0.0 |
| Electrician | 8 | 0.5 | 6 | 0.4 | 4 | 0.3 |
| Other construction craftsmen | 10 | 0.6 | 2 | 0.1 | 0 | 0.0 |
| Metal working craftsmen | 5 | 0.3 | 4 | 0.3 | 2 | 0.1 |
| Foremen, nec | 10 | 0.6 | 8 | 0.5 | 10 | 0.6 |
| Mechanics, repairmen, & installers | 50 | 3.2 | 50 | 3.2 | 53 | 3.4 |
| Air cond., heating, refrig., workers | 10 | 0.6 | 12 | 0.8 | 12 | 0.8 |
| Automotive workers | 26 | 1.7 | 26 | 1.7 | 29 | 1.9 |
| Heavy equipment & diesel mechanics | 4 | 0.3 | 4 | 0.3 | 4 | 0.3 |
| Other mechs. & repairmen | 10 | 0.6 | 8 | 0.5 | 8 | 0.5 |
| Printing trade craftsmen | 9 | 0.6 | 6 | 0.4 | 6 | 0.4 |
| Transp. & public util. craftsmen | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other craftsmen & kindred | 2 | 0.1 | 3 | 0.2 | 3 | 0.2 |
| Operatives | 10 | 0.6 | 4 | 0.3 | 2 | 0.1 |
| Operatives other than transportation | 8 | 0.5 | 4 | 0.3 | 2 | 0.1 |
| Semi-skilled metalworking | 4 | 0.3 | 4 | 0.3 | 2 | 0.1 |
| Semi-skilled textile | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Semi-skilled packing & inspecting | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Transportation equip; operatives | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Service Workers | 47 | 3.0 | 51 | 3.3 | 49 | 3.2 |
| Cleaning service | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Food service | 7 | 0.5 | 2 | 0.1 | 3 | 0.2 |
| Health service | 6 | 0.4 | 1 | 0.1 | 1 | 0.1 |
| Personal service | 4 | 0.3 | 10 | 0.6 | 7 | 0.5 |
| Protective service | 30 | 1.9 | 38 | 2.5 | 38 | 2.4 |
| Private household | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Laborers (non-farm) | 17 | 1.1 | 2 | 0.1 | 2 | 0.1 |
| Farmers & Farm Workers | 8 | 0.5 | 3 | 0.2 | 3 | 0.2 |
| Farmer & farm manager | 4 | 0.3 | 3 | 0.2 | 3 | 0.2 |
| Farm laborers & foremen | 4 | 0.3 | 0 | 0.0 | 0 | 0.0 |
| Other | 235 | 15.2 | 57 | 3.7 | 8 | 0.5 |
| Military | 2 | 0.1 | 7 | 0.5 | 2 | 0.1 |
| Housewife | 7 | 0.5 | 37 | 2.4 | 6 | 0.4 |
| Student | 226 | 14.6 | 13 | 0.8 | 0 | 0.0 |
| Total | 1,543 | 100.0 | 1,551 | 100.0 | 1,555 | 100.0 |

The data of Table 18 represent the occupation and career choices of the graduates for next fall, five years hence, and for their long-term careers. In all three time frames nursing was, by far, the most common choice. Nearly 30 percent of the respondents hoped to be nurses in the fall, and 27 percent planning on making their long-term career in nursing.

Fifteen percent of the respondents expected to be students in the fall. However, only one percent thought that being a student would be their primary activity five years hence. This indicates that many of those who plan to pursue degrees beyond the associate level (Table 13) expect to continue their formal education on a part-time basis.

* * * * *

| | Next Fall | | | | | | 5 Years Hence | | | | | | Long-Term Career | | | | | |
|------------------------|-----------|-------|--|--------|-------|--|---------------|-------|-------|--------|-------|--|------------------|-------|---|-------|-------|-------|
| | Public | | | Indep. | | | All | | | Public | | | Indep. | | | All | | |
| | M | F | | M | F | | M | F | T | M | F | | M | F | T | M | F | T |
| Occupational Category | 596 | 682 | | 108 | 167 | | 704 | 849 | 1,553 | 590 | 678 | | 106 | 167 | | 596 | 682 | 1,549 |
| Prof., tech., kind. | 39.7% | 72.0% | | 42.5% | 65.3% | | 40.1% | 70.7% | 56.8% | 63.8% | 78.0% | | 59.0% | 76.5% | | 66.8% | 83.0% | 74.6% |
| Mgr., off., prop | 7.5 | 0.6 | | 14.2 | 2.4 | | 8.5 | 0.9 | 4.3 | 14.8 | 2.3 | | 23.8 | 6.0 | | 13.4 | 3.2 | 7.8 |
| Sales workers | 2.7 | 1.2 | | 6.6 | 1.8 | | 3.3 | 1.3 | 2.2 | 2.0 | 0.6 | | 2.9 | 0.0 | | 2.3 | 0.3 | 0.0 |
| Clerical workers | 1.7 | 16.2 | | 3.8 | 16.2 | | 2.0 | 16.2 | 9.8 | 0.3 | 11.4 | | 0.0 | 8.4 | | 0.3 | 11.1 | 9.6 |
| Crafts., foremen, kind | 15.9 | 0.0 | | 3.8 | 0.0 | | 14.1 | 0.0 | 6.4 | 13.1 | 0.0 | | 1.0 | 0.0 | | 12.4 | 0.0 | 1.9 |
| Operatives | 1.4 | 0.3 | | 0.0 | 0.0 | | 1.1 | 0.2 | 0.6 | 0.3 | 0.3 | | 0.0 | 0.0 | | 0.3 | 0.0 | 0.0 |
| Service workers | 3.7 | 1.5 | | 10.4 | 2.4 | | 4.7 | 1.7 | 3.0 | 3.4 | 2.1 | | 12.4 | 2.4 | | 3.4 | 1.8 | 2.4 |
| Laborers | 2.0 | 0.0 | | 2.8 | 0.0 | | 2.2 | 0.0 | 1.0 | 0.3 | 0.0 | | 0.0 | 0.0 | | 0.3 | 0.0 | 0.0 |
| Farmers, farm workers | 1.0 | 0.0 | | 1.9 | 0.0 | | 1.1 | 0.0 | 0.5 | 0.3 | 0.0 | | 1.0 | 0.0 | | 0.3 | 0.0 | 0.0 |
| Military | 0.3 | 0.0 | | 0.0 | 0.0 | | 0.3 | 0.0 | 0.1 | 0.3 | 0.6 | | 0.0 | 0.6 | | 0.3 | 0.0 | 0.0 |
| Housewife | -- | 0.3 | | -- | 3.0 | | -- | 0.8 | 0.5 | -- | 4.1 | | -- | 5.4 | | -- | 0.6 | 1.2 |
| Student | 24.1 | 8.0 | | 14.2 | 9.0 | | 22.6 | 8.2 | 14.7 | 1.3 | 0.6 | | 0.0 | 0.6 | | -- | -- | -- |

Table 19 represents the occupational choices, by category, of the graduates for next fall, five years hence, and for a long-term career, presented by sex of respondents and type of institution attended. The manpower supply rises over time as those expecting to be students this fall eventually enter the labor force. Many of the females expecting to be occupied as housewives five years hence also expect to reenter the labor force at some future point.

Fifty-seven percent of the respondents expected to be employed in professional, technical, and kindred occupations in the fall. This figure rises to 75 percent for long-term careers, and includes 82 percent of the females and 65 percent of the males. Nine percent of the graduates expected to pursue careers in the managers, officials, and proprietors category, comprised of fifteen percent of the males and four percent of the females. Eleven percent of the females expected to pursue careers as clerical workers, matched by the eleven percent of the males planning careers as craftsmen, foremen and kindred. Higher percentages of respondents expected to be employed in these latter two categories for the fall than for their long-term careers.

TABLE 20: RELATIONSHIP OF UNDERGRADUATE MAJOR TO CAREER ASPIRATION

Question 24: To what extent do you expect your long-term career to be related to your undergraduate major field of study?

| Degree of Relatedness | Public | | | Independent | | | All | | |
|-----------------------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 602 | F 678 | T 1,280 | M 108 | F 166 | T 274 | M 710 | F 844 | T 1,554 |
| Highly related | 71.1% | 86.1% | 79.1% | 65.7% | 84.3% | 77.0% | 70.3% | 85.7% | 78.7% |
| Somewhat related | 26.6 | 12.1 | 18.9 | 29.6 | 11.4 | 18.6 | 27.0 | 12.0 | 18.9 |
| Unrelated | 2.3 | 1.8 | 2.0 | 4.6 | 4.2 | 4.4 | 2.7 | 2.3 | 2.4 |

Seventy-nine percent of the graduates expected that their long-term career would be highly related to their undergraduate major. An additional nineteen percent expected that their career field would be at least somewhat related to their major, and only 2.4 percent indicated that they expected to pursue a career unrelated to their major. Females, to a greater extent than males, expected a high degree of relationship between their career and their field of study.

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TABLE 21: UNDERGRADUATE MAJOR AND CAREER RELATEDNESS

Questions 9 & 24:

| Degree of Relatedness | Business & Commerce Tech. | | Health Tech. | | Mechan. and Engr. Tech. | | Misc. Associate Degrees | | Total | |
|-----------------------|---------------------------|-------|--------------|-------|-------------------------|-------|-------------------------|-------|-------|-------|
| | n | % | n | % | n | % | n | % | n | % |
| Highly related | 234 | 72.0 | 533 | 91.0 | 260 | 69.1 | 198 | 74.2 | 1,225 | 78.8 |
| Somewhat related | 81 | 24.9 | 42 | 7.2 | 104 | 27.7 | 64 | 24.0 | 291 | 18.7 |
| Unrelated | 10 | 3.1 | 11 | 1.9 | 12 | 3.2 | 5 | 1.9 | 38 | 2.4 |
| Total | 325 | 100.0 | 586 | 100.0 | 376 | 100.0 | 267 | 100.0 | 1,554 | 100.0 |

When the relationship between the respondents' career choices and their fields of study was considered by the area of study, it was apparent that those in the health service and paramedical technologies most frequently anticipated careers closely related to study. The three other general areas of study were approximately equivalent in the degree to which careers were expected to be related to studies.

* * * * *

TABLE 22: EXPECTED FALL OCCUPATIONAL CATEGORY, BY MAJOR AREA OF STUDY

Questions 9 and 22:

| Occupational Category | Business & Commerce Technologies | | Health Technologies | | Mechanical & Engineering Technologies | | Miscellaneous Associate Degrees | | Total | |
|-----------------------|----------------------------------|-------|---------------------|-------|---------------------------------------|-------|---------------------------------|-------|-------|-------|
| | n | % | n | % | n | % | n | % | n | % |
| Prof., tech., kind. | 69 | 21.4 | 551 | 94.0 | 175 | 47.0 | 79 | 30.4 | 874 | 56.7 |
| Mgr., off., prop. | 44 | 13.6 | 0 | 0.0 | 8 | 2.2 | 15 | 5.8 | 67 | 4.3 |
| Sales workers | 19 | 5.9 | 1 | 0.2 | 4 | 1.1 | 10 | 3.8 | 34 | 2.2 |
| Clerical workers | 132 | 40.9 | 1 | 0.2 | 0 | 0.0 | 18 | 6.9 | 151 | 9.8 |
| Crafts., fore., kind. | 11 | 3.4 | 0 | 0.0 | 80 | 21.5 | 7 | 2.7 | 98 | 6.4 |
| Operatives | 2 | 0.6 | 0 | 0.0 | 6 | 1.6 | 2 | 0.8 | 10 | 0.6 |
| Service workers | 5 | 1.5 | 7 | 1.2 | 0 | 0.0 | 35 | 13.5 | 47 | 3.0 |
| Laborers | 3 | 0.9 | 0 | 0.0 | 6 | 1.6 | 8 | 3.1 | 17 | 1.1 |
| Farmers & farm work. | 2 | 0.6 | 0 | 0.0 | 4 | 1.1 | 2 | 0.8 | 8 | 0.5 |
| Military service | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.8 | 2 | 0.1 |
| Housewife | 4 | 1.2 | 2 | 0.3 | 0 | 0.0 | 1 | 0.4 | 7 | 0.5 |
| Student | 32 | 9.9 | 24 | 4.1 | 89 | 23.9 | 81 | 31.2 | 226 | 14.7 |
| Total | 323 | 100.0 | 586 | 100.0 | 272 | 100.0 | 260 | 100.0 | 1,541 | 100.0 |

When the expected fall occupational categories of the respondents are considered by the area of study, vast differences in the responses of graduates are noted. The 57 percent of all the graduates who expected to be employed in the professional, technical, and kindred category included 94 percent of those from the health area, 47 percent from the mechanical and engineering technologies, 21 percent from the business and commerce technologies, and 30 percent from miscellaneous associate degree programs. Forty-one percent of those from business and commerce programs expected to be employed in clerical positions in the fall, while 31 percent from miscellaneous associate level programs and 24 percent from mechanical and engineering technologies expected to be pursuing further study. Twenty-two percent of the latter group expected to be employed in the craftsmen, foremen and kindred occupational category.

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TABLE 23: CAREER OCCUPATIONAL CATEGORY BY MAJOR AREA OF STUDY

Questions 9 and 21 :

| Occupational Category | Business & Commerce Technologies | | Health Technologies | | Mechanical & Engineering Technologies | | Misc. Associate Degrees | | Total | |
|------------------------|----------------------------------|-------|---------------------|-------|---------------------------------------|-------|-------------------------|-------|-------|-------|
| | n | % | n | % | n | % | n | % | n | % |
| Prof., tech., kind. | 126 | 38.5 | 573 | 97.8 | 275 | 73.9 | 182 | 67.9 | 1,156 | 74.4 |
| Mgr., off., prop. | 85 | 26.0 | 8 | 1.4 | 26 | 7.0 | 21 | 7.8 | 140 | 9.0 |
| Sales workers | 14 | 4.3 | 0 | 0.0 | 3 | 0.8 | 4 | 1.5 | 21 | 1.4 |
| Clerical workers | 91 | 27.8 | 1 | 0.2 | 0 | 0.0 | 2 | 0.7 | 94 | 6.1 |
| Crafts., fore., kind. | 6 | 1.8 | 0 | 0.0 | 64 | 17.2 | 8 | 3.0 | 78 | 5.0 |
| Operatives | 0 | 0.0 | 0 | 0.0 | 2 | 0.5 | 0 | 0.0 | 2 | 0.1 |
| Service workers | 3 | 0.9 | 3 | 0.5 | 0 | 0.0 | 43 | 16.0 | 49 | 3.2 |
| Laborers | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 | 2 | 0.1 |
| Farmers & farm workers | 1 | 0.3 | 0 | 0.0 | 2 | 0.5 | 0 | 0.0 | 3 | 0.2 |
| Military service | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 | 2 | 0.1 |
| Housewife | 1 | 0.3 | 1 | 0.2 | 0 | 0.0 | 4 | 1.5 | 6 | 0.4 |
| Total | 327 | 100.0 | 586 | 100.0 | 372 | 100.0 | 268 | 100.0 | 1,553 | 100.0 |

The occupational categories of the respondents' career choices differed when considered by their area of study, but the differences were not as great as those for their fall expectations. Ninety-eight percent of the graduates from health programs expected to pursue careers in professional, technical, and kindred occupations, compared with 74 percent of the mechanical and engineering technologies graduates, 39 percent of those from business and commerce technologies, and 68 percent of those from miscellaneous associate degree programs. Of the business and commerce graduates, 28 percent planned to pursue careers in clerical occupations and 26 percent as managers, officials, or proprietors. Of those in mechanical and engineering technologies, seventeen percent expected careers in the craftsmen, foremen, and kindred category, while among the miscellaneous program graduates, sixteen percent expected to pursue careers in service areas and eight percent as managers, officials, or proprietors.

* * * * *

TABLE 24: PROFESSIONAL, TECHNICAL, & KINDRED CAREER CHOICES BY
MAJOR AREA OF STUDY

Questions 9 and 21:

| Career Choice | Business & Commerce Technologies | | Health Technologies | | Mechanical & Engineer Technologies | | Misc. Associate Degrees | | Total | |
|--------------------------------|----------------------------------|-------|---------------------|-------|------------------------------------|-------|-------------------------|-------|-------|-------|
| | n | % | n | % | n | % | n | % | n | % |
| Engineers | 0 | 0.0 | 0 | 0.0 | 60 | 21.8 | 5 | 2.7 | 65 | 5.6 |
| Math-computer occup. | 9 | 7.1 | 0 | 0.0 | 6 | 2.2 | 42 | 23.1 | 57 | 4.9 |
| Medical workers | 2 | 1.6 | 440 | 76.8 | 2 | 0.7 | 4 | 2.2 | 448 | 38.8 |
| Health technicians | 0 | 0.0 | 72 | 12.6 | 2 | 0.7 | 2 | 1.1 | 76 | 6.6 |
| Technicians (non-health) | 2 | 1.6 | 5 | 0.9 | 155 | 56.4 | 5 | 2.7 | 167 | 14.4 |
| Education professions | 9 | 7.1 | 34 | 5.9 | 18 | 6.5 | 42 | 23.1 | 103 | 8.9 |
| Writers, artists, entertainers | 8 | 6.3 | 4 | 0.7 | 12 | 4.4 | 28 | 15.4 | 52 | 4.5 |
| Accountants, auditors | 78 | 61.9 | 0 | 0.0 | 0 | 0.0 | 3 | 1.6 | 81 | 7.0 |
| Other prof., tech., kind | 18 | 14.3 | 18 | 3.1 | 20 | 7.3 | 51 | 28.0 | 107* | 9.3 |
| Total | 126 | 100.0 | 573 | 100.0 | 275 | 100.0 | 182 | 100.0 | 1,156 | 100.0 |

There are a number of subgroups of occupations within the occupational category of professional, technical, and kindred workers. Since approximately three-quarters of the respondents aspired to careers within that category, it is worthwhile to view the aspirants to these subgroups by their academic majors.

The data of Table 24 indicate that, for a great majority of the graduates, career aspirations were closely related to major areas of study. For example, 77 percent of the majors in health technologies planned on being medical workers and 56 percent of the majors in mechanical and engineering technologies expected to become technicians. However, many of these graduates, particularly those who aspired to careers as engineers and teachers, will probably require further formal education beyond the associate degree to meet their career goals.

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TABLE 25: DESIRED CAREER WORK ENVIRONMENTS

Question 60: In which of the following work environments do you hope to make your long-term career?

| Environment | Public | | | Independent | | | All | | |
|-----------------------------------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 602 | F 680 | T 1,282 | M 108 | F 167 | T 275 | M 710 | F 847 | T 1,557 |
| Self employed or private practice | 21.6% | 6.5% | 13.6% | 28.7% | 4.2% | 13.8% | 22.7% | 6.0% | 13.6% |
| Business or industry | 47.2 | 21.5 | 33.5 | 41.7 | 19.8 | 28.4 | 46.3 | 21.1 | 32.6 |
| Educational inst. | 6.0 | 10.3 | 8.3 | 2.8 | 6.0 | 4.7 | 5.5 | 9.4 | 7.6 |
| Private research org. | 2.7 | 0.9 | 1.7 | 2.8 | 1.8 | 2.2 | 2.7 | 1.1 | 1.8 |
| Welfare agency | 0.0 | 0.3 | 0.2 | 0.0 | 1.8 | 1.1 | 0.0 | 0.6 | 0.3 |
| Military service | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 0.3 |
| Gov't. or public serv. | 9.6 | 4.4 | 6.9 | 15.7 | 3.6 | 8.4 | 10.6 | 4.3 | 7.1 |
| Health care facility | 4.7 | 51.8 | 29.6 | 5.6 | 54.5 | 35.3 | 4.8 | 52.3 | 30.6 |
| Other | 8.0 | 4.1 | 5.9 | 2.8 | 8.4 | 6.2 | 7.2 | 5.0 | 6.0 |

Thirty-three percent of the graduates expected that their career work environment would be in business or industry. This included 46 percent of the males and 21 percent of the females. Close behind in frequency of choice was health care facility, which was the expected career work environment for 31 percent of the respondents, comprised of 52 percent of the females and five percent of the males. Fourteen percent of the graduates, made up of 23 percent of the males and six percent of the females, expected to be self-employed or in private practice. An additional eight percent of the respondents expected to work in educational institutions and seven percent in public service or for the government. A total of 2.4 percent planned career environments in private research organizations, welfare agencies, or the military, and six percent expected career environments other than those mentioned above.

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TABLE 26: IMPORTANCE OF FACTORS IN CHOOSING LONG-TERM CAREER

Questions 28-42: How important has each of the following factors been to you in your choice of a long-term career?

| Factor | Very Important | | Somewhat Important | | Not Important | |
|-------------------------------------|----------------|------|--------------------|------|---------------|------|
| | n | % | n | % | n | % |
| Interest in work activities | 1,091 | 69.9 | 423 | 27.1 | 46 | 2.9 |
| Service to others | 949 | 60.8 | 454 | 29.1 | 157 | 10.1 |
| Work with people rather than things | 889 | 57.0 | 362 | 23.2 | 309 | 19.8 |
| Uses special talents/abilities | 865 | 55.4 | 612 | 39.2 | 83 | 5.3 |
| Security | 846 | 54.2 | 612 | 39.2 | 102 | 6.5 |
| Initial job opportunities | 676 | 43.3 | 680 | 43.6 | 204 | 13.1 |
| Opportunity for leadership | 467 | 29.9 | 775 | 49.7 | 318 | 20.4 |
| Independence | 428 | 27.4 | 715 | 45.8 | 417 | 26.7 |
| Desire to contribute to knowledge | 396 | 25.4 | 713 | 45.6 | 453 | 29.0 |
| Opportunity to get ahead rapidly | 312 | 20.0 | 768 | 49.2 | 482 | 30.9 |
| High income | 309 | 19.8 | 998 | 64.0 | 253 | 16.2 |
| Education requires less time | 177 | 11.4 | 434 | 27.9 | 946 | 60.8 |
| Status, prestige | 168 | 10.8 | 893 | 57.2 | 501 | 32.1 |
| Interest in travel | 160 | 10.3 | 413 | 26.5 | 985 | 63.2 |
| Allows free time | 153 | 9.8 | 525 | 33.7 | 882 | 56.5 |

Interest in work activities appeared to be the most important factor considered by the respondents in choosing their careers. Other factors indicated by a majority of respondents as having been very important in making career decisions were being of service to others, working with people rather than things, the opportunity to use their special talents and abilities, and security. The only factors which were not important to a majority of the graduates were interest in travel, less education required for entrance to the occupation, and occupation allows more free time.

* * * * *

TABLE 27: FACTORS INDICATED AS BEING VERY IMPORTANT IN MAKING
CAREER CHOICES (TABLE 26, COLUMN 1)

Questions 28-42:

| Factors | Public | | | Independent | | | All | | |
|-----------------------------------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 600 | F 682 | T 1,282 | M 108 | F 168 | T 276 | M 708 | F 805 | T 1,558 |
| Interest in work activities | 70.3% | 71.6% | 71.0% | 59.3% | 69.6% | 65.6% | 68.6% | 71.2% | 70.0% |
| Service to others | 41.7 | 76.0 | 59.9 | 50.0 | 75.6 | 65.6 | 42.9 | 75.9 | 60.9 |
| Work with people | 30.7 | 76.2 | 54.9 | 52.8 | 75.0 | 66.3 | 34.0 | 76.0 | 56.9 |
| Uses talents/abilities | 54.3 | 57.2 | 55.9 | 59.3 | 49.4 | 53.3 | 55.1 | 55.6 | 55.4 |
| Security | 53.0 | 55.4 | 54.3 | 60.2 | 50.6 | 54.3 | 54.1 | 54.5 | 54.3 |
| Initial job opportunities | 35.2 | 48.5 | 42.3 | 43.5 | 50.6 | 47.8 | 36.5 | 48.9 | 43.3 |
| Opportunity for leadership | 34.7 | 26.1 | 30.1 | 37.0 | 24.4 | 29.3 | 35.0 | 25.8 | 30.0 |
| Independence | 28.3 | 27.3 | 27.8 | 37.0 | 19.0 | 26.1 | 29.7 | 25.6 | 27.5 |
| Desire to contribute to knowledge | 27.2 | 24.6 | 25.9 | 27.8 | 20.2 | 23.2 | 27.3 | 23.8 | 25.4 |
| Opportunity to get ahead rapidly | 25.9 | 14.7 | 19.9 | 31.5 | 11.9 | 19.6 | 26.8 | 14.1 | 19.9 |
| High income | 21.7 | 17.6 | 19.5 | 28.7 | 15.5 | 20.7 | 22.7 | 17.2 | 19.7 |
| Ed. requires less time | 8.3 | 14.1 | 11.4 | 5.6 | 14.9 | 11.3 | 7.9 | 14.3 | 11.4 |
| Status, prestige | 11.6 | 9.1 | 10.3 | 16.7 | 10.7 | 13.0 | 12.4 | 9.4 | 10.8 |
| Interest in travel | 12.0 | 8.8 | 10.3 | 12.0 | 8.9 | 10.1 | 12.0 | 8.8 | 10.3 |
| Allows free time | 11.0 | 9.4 | 10.1 | 13.9 | 4.8 | 8.3 | 11.4 | 8.5 | 9.8 |

Table 27 represents the factors rated as very important to the graduates in making career choices, by sex of respondent and type of institution. Males appeared to be more concerned than females about factors involving leadership opportunity, the opportunity to get ahead rapidly, high income and travel. Females were more concerned than males about being of service to others, the opportunity to work with people instead of things, the initial job opportunities, and less education required for entrance to the occupation than to others. Differences in the responses of males and females for the remaining factors did not reach the 0.01 level of significance.

Two factors, those of service to others and the opportunity to work with people rather than things were significantly more important to the respondents from the independent institutions than to those from the public.

TABLE 28: TIME AT WHICH CAREER CHOICE WAS MADE

Question 25: When did you make your present choice of career?

| Time | Public | | | Independent | | | All | | |
|---------------------------------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 584 | F 668 | T 1,252 | M 108 | F 165 | T 273 | M 692 | F 833 | T 1,525 |
| Still undecided | 7.2% | 0.3% | 3.5% | 5.6% | 1.8% | 3.3% | 6.9% | 0.6% | 3.5% |
| Second year | 24.3 | 20.1 | 22.0 | 31.5 | 18.2 | 23.4 | 25.4 | 19.7 | 22.3 |
| First year | 31.8 | 24.9 | 28.1 | 20.4 | 18.2 | 19.0 | 30.1 | 23.5 | 26.5 |
| During or before high school | 36.6 | 54.8 | 46.3 | 42.6 | 61.8 | 54.2 | 37.6 | 56.2 | 47.7 |

Nearly half of the graduates reported having made their career choice during or before high school, including 54 percent of those from the independent institutions and 46 percent from the public. Twenty-seven percent had made their career decision in their first year of college, and 22 percent had decided while in the second year of their program. Seven percent of the males and 0.6 percent of the females were still undecided concerning the choice of a career.

* * * * *

TABLE 29: CAREER CHOICE CHANGES SINCE ENTERING COLLEGE

Question 26: Have you changed your career choice since entering college?

| Changed | Public | | | Independent | | | All | | |
|---------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 594 | F 676 | T 1,270 | M 106 | F 166 | T 272 | M 700 | F 842 | T 1,542 |
| Yes | 33.3% | 22.8% | 27.7% | 35.8% | 19.9% | 26.1% | 33.7% | 22.2% | 27.4% |
| No | 66.7 | 77.2 | 72.3 | 64.2 | 80.1 | 73.9 | 66.3 | 77.8 | 72.6 |

The data of Table 29 indicate that twenty-seven percent of the graduates reported that they had changed their career choice since entering college. Significantly more males than females had made career choice changes (34 percent and 22 percent respectively).

* * * * *

TABLE 30: PRIMARY REASONS FOR CHANGING CAREER CHOICE

Question 27: If you have changed your career choice since entering college, why did you do so?

| Reasons | Public | | | Independent | | | All | | |
|---|----------|----------|----------|-------------|---------|---------|----------|----------|----------|
| | M 196 | F 154 | T 350 | M 38 | F 34 | T 72 | M 234 | F 188 | T 422 |
| Few job openings in previous choice | 7.1% | 9.1% | 8.0% | 7.9% | 8.8% | 8.3% | 7.3% | 9.0% | 8.1% |
| Better financial future | 7.1 | 7.8 | 7.4 | 10.5 | 8.8 | 9.7 | 7.7 | 8.0 | 7.8 |
| Better use of education | 2.0 | 6.5 | 4.0 | 2.6 | 5.9 | 4.2 | 2.1 | 6.4 | 4.0 |
| Better suits talents & aptitudes | 21.4 | 20.8 | 21.1 | 28.9 | 20.6 | 25.0 | 22.6 | 20.7 | 21.8 |
| Better suits interests | 18.4 | 23.4 | 20.6 | 10.5 | 23.5 | 16.7 | 17.1 | 23.4 | 19.9 |
| Previous choice only tentative | 11.2 | 11.7 | 11.4 | 10.5 | 2.9 | 6.9 | 11.1 | 10.1 | 10.7 |
| Training for previous choice too costly | 8.2 | 1.3 | 5.1 | 0.0 | 8.8 | 4.2 | 6.8 | 2.7 | 5.0 |
| Lost interest in previous choice | 11.2 | 6.5 | 9.1 | 10.5 | 5.9 | 8.3 | 11.1 | 6.4 | 9.0 |
| Other | 13.3 | 13.0 | 13.1 | 18.4 | 14.7 | 16.7 | 14.1 | 13.3 | 13.7 |

Table 30 represents the primary reason indicated by the graduates who had made career choice changes for making those changes. Twenty-two percent indicated that they had changed because the new choice better suited their talents and aptitudes, and twenty percent felt the new choice better suited their interests. Only eight percent indicated that their primary reason for making a change in career choice was a dearth of job openings in the initial choice.

* * * * *

TABLE 31: IMPORTANCE OF SOURCES OF INFORMATION IN MAKING CAREER CHOICES
 Questions 43-51: How influential has each of the following sources of information or guidance been to you in making your long-term career choice?

| Sources of Information | Very Important | | Somewhat Important | | Not Important | |
|--|----------------|------|--------------------|------|---------------|------|
| | n | % | n | % | n | % |
| Parents or relatives | 227 | 17.8 | 675 | 43.3 | 608 | 39.0 |
| Friends | 144 | 9.2 | 576 | 36.9 | 839 | 53.8 |
| High school teachers or counselors | 137 | 8.8 | 397 | 25.4 | 1,026 | 65.8 |
| College courses | 440 | 28.3 | 649 | 41.7 | 467 | 30.0 |
| College teachers | 324 | 20.8 | 553 | 35.5 | 679 | 43.6 |
| College career or placement counselors | 103 | 6.6 | 318 | 20.5 | 1,134 | 72.9 |
| Other college counselors | 68 | 4.4 | 283 | 18.2 | 1,205 | 77.4 |
| Printed materials, radio, or TV | 128 | 8.2 | 488 | 31.3 | 942 | 60.5 |
| Previous work experience | 559 | 35.9 | 447 | 28.7 | 550 | 35.3 |

Table 31 indicates the relative importance of a number of sources of information to the graduates in making their career choices. The most important source of information appeared to be their previous work experience, with college courses, college teachers, and the influence of parents or relatives also of major importance. More than half of the graduates responded that the influences of college career or placement counselors, other counselors, high school teachers or counselors, printed materials -radio -TV, and friends had not been important as sources of information in making a career decision.

* * * * *

TABLE 32: OCCUPATIONAL OR CAREER COUNSELING RECEIVED

Question 52: Did you receive occupational or career counseling while attending college?

| Counseling Received | Public | | | Independent | | | All | | |
|---------------------|--------|-------|-------|-------------|-------|-------|-------|-------|-------|
| | M | F | T | M | F | T | M | F | T |
| | 594 | 676 | 1,270 | 107 | 166 | 273 | 701 | 842 | 1,543 |
| Yes | 35.7% | 35.5% | 35.6% | 32.7% | 32.5% | 32.6% | 35.2% | 34.9% | 35.1% |
| No | 64.3 | 64.5 | 64.4 | 67.3 | 67.5 | 67.4 | 64.8 | 65.1 | 64.9 |

Approximately one third of the respondents had received occupational or career counseling while in college. This was fairly constant for both males and females, and for respondents from public and independent institutions.

* * * * *

TABLE 33: HELPFULNESS OF OCCUPATIONAL OR CAREER COUNSELING

Question 53: How helpful was occupational or career counseling received while in college?

| Degree of Helpfulness | Public | | | Independent | | | All | | |
|-----------------------|----------|----------|----------|-------------|---------|---------|----------|----------|----------|
| | M 212 | F 240 | T 452 | M 35 | F 54 | T 89 | M 247 | F 294 | T 541 |
| Very helpful | 24.5% | 29.2% | 27.0% | 17.1% | 31.5% | 25.8% | 23.5% | 29.6% | 26.8% |
| Somewhat helpful | 62.3 | 55.0 | 58.4 | 65.7 | 50.0 | 56.2 | 62.8 | 54.1 | 58.0 |
| Not helpful | 13.2 | 15.8 | 14.6 | 17.1 | 18.5 | 18.0 | 13.8 | 16.3 | 15.2 |

Table 33 represents the evaluation of the career or placement counseling received by those who had experienced such counseling. Eighty-five percent thought that the counseling had been helpful, with 27 percent of them indicating that it had been very helpful.

* * * * *

TABLE 34: EXPECTED CAREER RESIDENCE

Question 61: Where do you expect to be living when you begin your career?

| Place of Residence | Public | | | Independent | | | All | | |
|--------------------------------|----------|----------|------------|-------------|----------|----------|----------|----------|------------|
| | M 596 | F 678 | T 1,274 | M 107 | F 166 | T 273 | M 703 | F 844 | T 1,547 |
| Within Indiana | 62.1% | 81.7% | 72.5% | 69.2% | 77.7% | 74.4% | 63.2% | 80.9% | 72.9% |
| Outside Ind. but within U.S.A. | 36.2 | 17.7 | 26.4 | 29.9 | 22.3 | 25.3 | 35.3 | 18.6 | 26.2 |
| Outside U.S.A. | 1.7 | 0.6 | 1.1 | 0.9 | 0.0 | 0.4 | 1.6 | 0.5 | 1.0 |

Table 34 indicates that seventy-three percent of the respondents, including 81 percent of the females and 63 percent of the males, expected to live within Indiana while engaged in their career jobs. The graduates from public institutions did not differ significantly with those from the independent in this regard.

* * * * *

TABLE 35: EXPECTED CAREER RESIDENCE BY HIGH SCHOOL LOCATION

Questions 4 & 61:

| Career Residence | Public High School Location | | | Independent High School Location | | | All High School Location | | |
|-----------------------------------|-----------------------------|-----------------|----------------|----------------------------------|-----------------|----------------|--------------------------|-----------------|----------------|
| | Within Indiana | Outside Indiana | Outside U.S.A. | Within Indiana | Outside Indiana | Outside U.S.A. | Within Indiana | Outside Indiana | Outside U.S.A. |
| Within Indiana | n 848 % 76.3 | 72 50.0 | 6 33.3 | 181 82.3 | 20 39.2 | 2 100.0 | 1,029 77.3 | 92 47.2 | 8 40.0 |
| Outside Indiana but within U.S.A. | n 254 % 22.8 | 70 48.6 | 10 55.6 | 39 17.7 | 30 58.8 | 0 0.0 | 293 22.0 | 100 51.3 | 10 50.0 |
| Outside U.S.A. | n 10 % 0.9 | 2 1.4 | 2 11.1 | 0 0.0 | 1 2.0 | 0 0.0 | 10 0.8 | 3 1.5 | 2 10.0 |
| Total | n 1,112 % 100.0 | 144 100.0 | 18 100.0 | 220 100.0 | 51 100.0 | 2 100.0 | 1,332 100.0 | 195 100.0 | 20 100.0 |

Table 35 compares high school residence with expected career residence by type of institution attended in order to provide a measure of out-migration from Indiana colleges and universities. A total of 1,332 respondents had come from high schools within Indiana and a total of 1,129 expected to pursue careers in the state, a net loss of 203 graduates. However, it is likely that some or all of this deficit is made up by out-of-state associate level graduates who come to Indiana to pursue their careers.

* * * * *

PART VI

ASSOCIATE DEGREE-LEVEL MANPOWER PRODUCED IN INDIANA

1974-1975

The data of this report have been collected and analyzed toward the ultimate goal of estimating associate degree-level manpower supply in Indiana. A number of intervening variables make the attempt to ascertain precisely college-level manpower supply on a statewide basis a quixotic effort. For that reason, the extrapolations presented in this section of this report should be viewed as rough estimates.

One intervening variable involves the time or stage in individuals' career development with which one is concerned. As has been shown in this report, degree recipients do not necessarily plan to pursue a single occupation indefinitely. The occupation in which they expect to be employed immediately after receiving an associate degree may be very different from that to which they aspire five or ten years hence. The analysis presented in Part VI concerns the long-term career aspirations of Indiana's 1974-75 associate degree recipients, realizing that long-term career fields are entered at different times by different individuals, and that some people pursue multiple careers.

Mobility is another variable which affects the accuracy of statewide manpower supply estimates. It was reported in Table 34 that 73 percent of the respondents expected to pursue careers in Indiana. In Table 35 it was noted that there were more associate degree recipients who had graduated from Indiana high schools than planned to pursue careers in the state. However, this apparent out-migration may well be offset by degree recipients of institutions in other states who come to Indiana to pursue careers.

National trends and developments can strongly affect statewide manpower supply and demand figures. Trained manpower shortages in one part of the nation may be surpluses in another. Degree recipients may be willing to relocate if this action means that they will be able to find a desired form of employment, so interpretation of statewide college-level manpower supply should often be viewed in a nationwide context.

It should also be kept in mind that, for many occupations, the educational or training preferences of employers determine opportunities for the employment of college graduates. For this reason, a variety of educational backgrounds may be avenues to a specific type of employment. In other words, the manpower supply data of this report relate only to associate degree recipients and do not constitute all of the state's manpower supply to any occupation.

TABLE 36: ASSOCIATE DEGREE-LEVEL MANPOWER PRODUCED IN INDIANA
1974-75

Questions 21 and 61:

| Career Choice | All Graduates (Extrapolation) | Career Expected in Indiana (Extrapolation) | Percent Expecting Career in Indiana (Col.2 ÷ Col.1) |
|--|----------------------------------|--|---|
| Professional, Technical, Kindred | 3,027 | 2,137 | 70.6% |
| Engineers | 192 | 120 | 62.5 |
| Life scientists | 18 | 11 | 61.1 |
| Physical scientists | 0 | 0 | -- |
| Math specialists | 0 | 0 | -- |
| Medical workers | 1,086 | 906 | 83.4 |
| Dentists | 0 | 0 | -- |
| Optometrists | 0 | 0 | -- |
| Pharmacists | 6 | 6 | 100.0 |
| Physicians/surgeons | 13 | 5 | 38.5 |
| RNs | 1,006 | 854 | 84.9 |
| Therapists | 46 | 34 | 73.9 |
| Veterinarians | 0 | 0 | -- |
| Other medical | 15 | 7 | 46.7 |
| Technicians - health | 185 | 142 | 76.8 |
| Clinical/med. lab technicians | 27 | 19 | 70.4 |
| Dental hygienists/lab technicians | 103 | 83 | 80.6 |
| LPNs | 0 | 0 | -- |
| Therapy technicians | 14 | 14 | 100.0 |
| Other health technicians | 41 | 26 | 63.4 |
| Technicians-science & engineering | 275 | 161 | 58.5 |
| Science technicians | 37 | 12 | 32.4 |
| Engineering technicians | 238 | 149 | 62.6 |
| Technicians - other | 215 | 79 | 36.7 |
| Aviation technicians | 112 | 18 | 16.1 |
| Other technicians nec | 103 | 61 | 59.2 |
| Computer specialists | 157 | 125 | 79.6 |
| Psychologists | 50 | 32 | 64.0 |
| Social scientists | 17 | 5 | 29.4 |
| Education professions | 269 | 178 | 66.2 |
| Elementary & pre-school teachers | 43 | 41 | 95.3 |
| Secondary school teachers | 70 | 55 | 78.6 |
| College teachers | 74 | 45 | 60.8 |
| Special ed. professions | 27 | 11 | 40.7 |
| School counselors | 0 | 0 | -- |
| Other education professions | 55 | 26 | 47.3 |
| Writers, artists, entertainers | 141 | 82 | 58.2 |
| Writers & kindred | 23 | 20 | 87.0 |
| Artists & entertainers | 118 | 62 | 52.5 |
| Other professional, technical, kindred | 422 | 296 | 70.1 |
| Accountants & auditors | 217 | 179 | 82.5 |
| Architects | 53 | 18 | 34.0 |
| Clergy and kindred | 3 | 3 | 100.0 |
| Lawyers and judges | 43 | 14 | 32.6 |
| Librarians, curators, archivists | 15 | 12 | 80.0 |
| Social workers | 47 | 41 | 87.2 |
| Other | 44 | 29 | 65.9 |
| Managers, Officials, and Proprietors | 393 | 263 | 66.9 |
| Buyers, sales, loan managers | 109 | 74 | 67.9 |
| Bank and financial managers | 22 | 16 | 72.7 |
| Buyers | 33 | 12 | 36.4 |
| Sales managers | 54 | 46 | 85.2 |
| Administrators & public inspectors | 64 | 48 | 75.0 |
| Health administrators | 19 | 14 | 73.7 |
| School administrators | 2 | 0 | 0.0 |
| Other administrators | 43 | 34 | 79.1 |
| Inspectors, public | 0 | 0 | -- |
| Other managers, officials, proprietors | 220 | 141 | 64.1 |
| Office managers, nec | 109 | 80 | 73.4 |
| Other managers and administrators | 111 | 61 | 55.0 |

Table 36 (continued)

| Career Choice | All Graduates (Extrapolation) | Career Expected in Indiana (Extrapolation) | Percent Expecting Career in Indiana (Col.2 + Col.1) |
|--------------------------------------|-------------------------------------|--|---|
| Sales Workers | 61 | 52 | 85.2 |
| Clerical Workers | 224 | 175 | 78.1 |
| Secretaries, stenographers, typists | 186 | 147 | 78.6 |
| Other clerical workers | 38 | 28 | 73.7 |
| Craftsmen, Foremen and Kindred | 228 | 165 | 72.4 |
| Foremen | 30 | 30 | 100.0 |
| Automotive workers | 87 | 57 | 65.5 |
| Other craftsmen, foremen and kindred | 111 | 78 | 70.3 |
| Operatives | 6 | 6 | 100.0 |
| Service Workers | 134 | 103 | 76.9 |
| Protective service workers | 107 | 81 | 75.7 |
| Other service workers | 27 | 22 | 81.5 |
| Laborers (non-farm) | 6 | 6 | 100.0 |
| Farmers & Farm Workers | 9 | 9 | 100.0 |
| Other | 20 | 10 | 50.0 |
| Military | 6 | 0 | 0.0 |
| Housewife | 14 | 10 | 71.4 |
| Total | 4,108 | 2,926 | 71.2 |

Table 36 represents the career plans of the respondents, extrapolated* to represent all of the 1974-75 associate degree recipients in the participating Indiana institutions. These extrapolations represent virtually all of the 1974-75 associate degrees granted by the public and independent institutions in the state. Because of the importance of the mobility of college graduates in assessing manpower supply, a separate extrapolation is reported for those respondents who expected to pursue careers in Indiana.

Of the 4,108 associate degree recipients represented by the survey sample, it would be anticipated that 2,926 or 71 percent expected to pursue careers in Indiana. Though the proportion expecting to remain in the state varied from occupation to occupation, in most cases it appeared that a majority of graduates hoped to pursue a career in Indiana.

* The total numbers of associate degrees conferred by participating institutions were taken from 1974-75 HEGIS institutional reports of degrees granted. Totals of associate degrees conferred were calculated for public institutions and independent institutions, by sex. These four totals were then divided by the number of usable survey responses for each sex and from each sector, resulting in the following coefficients of expansion:

Public (males) = 5.98

Independent (males) = 2.80

Public (females) = 4.73

Independent (females) = 2.45

These extrapolations indicate that, in 1974-75, Indiana's colleges and universities produced 3,027 associate degree recipients who aspired to careers in the professional, technical, and kindred occupational category. Over 1,000 of these hoped to be employed as registered nurses. The remaining aspirants to this occupational category were widely distributed between technical, health, educational, and business occupations.

An additional 393 degree recipients aspired to careers in the managers, officials, and proprietors occupational category. Occupations in the category of clerical workers were chosen by 224 graduates, most of whom hoped to be secretaries or stenographers. An additional 228 individuals hoped to pursue careers in the craftsmen, foremen, and kindred category, and 134 aspired to careers as service workers, primarily in protective service occupations (e.g. policemen, firemen, and watchmen, etc.). The combined number of graduates aspiring to careers in the categories of sales, operatives, laborers, and farmers/farm workers was less than one hundred.

APPENDIX A

METHODOLOGY

The Problem

What are the educational, occupational, and career plans and aspirations of associate degree recipients in the public and independent colleges and universities of Indiana?*

Development of the Instrument

A 61 item questionnaire (Appendix B), the "Occupation and Career Interest Survey" was developed. The questionnaire was designed to assess the educational, occupational, and career plans and aspirations of college students who would graduate with associate or baccalaureate degrees within a short period of time. Permission was obtained to use or adapt a number of questions from the "College Senior Survey" of the Educational Testing Service and the "Indiana High School Senior Survey", developed by Dr. J. P. Lisack of Purdue University.

Two detailed lists accompanied each questionnaire. The first dealt with degree programs and major fields of study, and was based upon the HEGIS Taxonomy for programs currently available in Indiana. The second list concerned occupation and career titles and groupings, and was based upon the occupational listings of the Bureau of the Census.

At the initiation of the Indiana College-Level Manpower Study, the presidents of all of Indiana's institutions from whom participation was requested designated contact persons for the study. A draft of the questionnaire was sent to the contact persons for criticism and suggested changes, and was revised accordingly. The revised instrument was then pretested with the graduating class at Franklin College. Analysis of the responses to each item and students' comments concerning the instrument led to further minor revisions of the questionnaire to its final form.

The Sample

The contact persons were asked to provide lists of students who would be graduating in the spring of 1975 with associate degrees. Fifty percent of those graduating from public institutions were chosen by a random selection process and received the survey instrument. One hundred percent of the independent schools' graduates were sent the questionnaire.

Questionnaire Distribution

Questionnaire distribution was conducted primarily by two methods. For

*Bachelor's degree recipients have also been studied. The results of that study were reported in a separate publication, Educational Plans and Career Choices of Bachelor's Degree Recipients in Indiana.

students living off-campus, first-class mail was used. For institutions with large numbers of students living in residence halls, campus mailings were prepared and distributed with the help of the contact person. At one institution the questionnaire was given to the selected students as part of a graduation check-out procedure. Answer sheets were returned directly to the Commission in preaddressed, postage paid envelopes.

Follow-Up Mailing

Because contact persons, in most cases, were unable to provide lists of graduates more than a few weeks prior to final examinations and graduation, only one mailing to the sample members from each institution was feasible. For Indiana Vocational Technical College and Anderson College time permitted a follow-up mailing. The responses to the second mailing were then compared with those of the first and were not found to be significantly different.*

Analysis of the Data

Students' responses to the questionnaire were made directly on Optical Scanning answer sheets which were prepared for this study (Appendix B). These responses were converted to computer tape and the Statistical Package for the Social Sciences (SPSS) was used for computation and statistical analysis of responses.

* At the two institutions where follow-up mailings were conducted an analysis of the differences between first-mailing respondents and follow-up respondents was made on 53 questionnaire items by means of the chi-square test of independence. Differences at or beyond the 0.05 level of significance were found in less than one percent of the cases.

Because responses to the second mailing at these two institutions did not appear to differ significantly from those to the initial mailing, it can be concluded that at the other institutions many non-respondents were similar to the respondents and that the data presented in this study are representative of more than the 47 percent of the sample who were included in the returns.

APPENDIX B
OCCUPATION AND CAREER INTEREST SURVEY

**STATE OF INDIANA
COMMISSION FOR HIGHER EDUCATION**

143 WEST MARKET STREET
INDIANAPOLIS, INDIANA 46204

OCCUPATION AND CAREER INTEREST SURVEY

Dear Graduating Student:

As your graduation approaches, you are called upon to make some important decisions concerning next year and your entire future. Will you continue your formal education, seek employment, or choose some other way of pursuing your life's goals?

The Indiana Commission for Higher Education is a state agency responsible for the coordination of public postsecondary institutions in the state, and is charged to take the private institutions' resources into account in its planning. In order to perform better its duties in these areas, the Commission is undertaking a major study of college level manpower supply and demand.

The portion of the Commission's manpower study related to this student survey is primarily an examination of factors influencing students' academic and career choices, and the relationships between these choices. The information gained from this study coupled with other portions of the overall manpower study will be of great value to the Commission and participating institutions in career counseling, and in developing academic programs to meet the needs of students.

Student input into this study is crucial to its success, so please take a few minutes to complete and return this questionnaire. A self-addressed envelope is enclosed for your convenience.

Sincerely,



Robert Greenberg
Project Director — Manpower

OCCUPATION AND CAREER INTEREST SURVEY

The Occupation and Career Interest Survey is part of the College-Level Manpower Study of the Indiana Commission for Higher Education. The Survey will provide information whereby we can better identify relationships between the occupations desired by college graduates and the types of degrees they receive. Such information should be useful to the Commission in its planning function, to colleges and universities as they develop academic programs, and to students themselves as they engage in the process of relating their educations to their anticipated careers.

Would you please complete the enclosed questionnaire by marking your responses on the separate answer sheet and return the answer sheet in the stamped, self-addressed envelope at your earliest convenience. If you do not expect to complete the requirements for an associate or bachelor's degree during the spring or summer of 1975, please return the answer sheet unmarked.

All individual responses to this questionnaire will be confidential. Results will be reported only for groups of students.

**PLEASE MARK RESPONSES TO ALL QUESTIONS ON THE ENCLOSED ANSWER SHEET
IN NUMBER 2 LEAD PENCIL.**

1. What is your sex?
(a) male
(b) female
2. How old will you be on July 1 of this year?
(a) 17 or younger (d) 22 or 23
(b) 18 or 19 (e) 24 to 29
(c) 20 or 21 (f) 30 or older
3. What is your current marital status?
(a) not married
(b) married
4. Where did you live when you last attended high school?
(a) within Indiana
(b) Outside Indiana but within the United States or its possessions
(c) in a foreign country
5. Since completing your high school studies have you ever interrupted your formal education for an extended period of time (semester, quarter, term or longer) other than a summer break?
(a) yes
(b) no

6. What is your approximate overall average grade in college?
(a) A— to A+ (c) C— to C+
(b) B— to B+ (d) lower than C—
7. What is your approximate average grade in your major field of study?
(a) A— to A+ (c) C— to C+
(b) B— to B+ (d) lower than C—

Use List A, "Degree Programs and Major Fields of Study" to answer the following three questions. Please enter the appropriate code numbers and fill in the corresponding spaces on the answer sheet.

8. What was your earliest declared degree program or major field of study?
9. What is your current degree program or major field of study?
10. If you plan to attain a higher degree, what will be your future field of study?

How important has each of the following been to you in the selection of your present degree program or major field of study? Please fill in one space for each potential influence.

- | | NOT IMPORTANT | SOMEWHAT IMPORTANT | VERY IMPORTANT | |
|-----|---------------|--------------------|----------------|--|
| 11. | (n) | (s) | (v) | The status or prestige of my major field. |
| 12. | (n) | (s) | (v) | The influence of parents, relatives, or friends. |
| 13. | (n) | (s) | (v) | The relationship between my major field of study and my talents and aptitudes. |
| 14. | (n) | (s) | (v) | The relationship between my major field of study and my interests. |
| 15. | (n) | (s) | (v) | The relationship between my major field of study and my career choice. |

The Occupation and Career Interest Survey is being conducted by the Indiana Commission for Higher Education in cooperation with the colleges and universities of the State of Indiana. We would like to thank the Educational Testing Service for their permission to use a number of questions developed for their College Senior Survey, and Dr. J. P. Lisack for his permission to use questions from his Indiana High School Senior Survey.

16. What is the highest level of education you expect to complete?
- Associate degree or equivalent
 - Bachelor's degree
 - First-professional degree (D.D.S. or D.M.D., LL.B. or J.D., M.D., B.D., D.V.M., D.S.C. or D.P.S.)
 - Master's degree
 - Specialist's degree (Ed.S., etc., **not** a first-professional degree)
 - Doctor's degree (Ph.D., Ed.D., etc., **not** a first-professional degree)

Use the following choices to answer questions 17 and 18:

- Less than high school graduation
 - Received a high school diploma or G.E.D.
 - Received an associate degree or equivalent
 - Received a bachelor's degree
 - Received a first-professional degree
 - Received a master's degree
 - Received a specialist's degree
 - Received a doctor's degree
17. What is the highest educational level completed by your father?
18. What is the highest educational level completed by your mother?

Use List B, "Occupational/Career Categories" to answer **each** of the following five questions. Please enter the appropriate code numbers and fill in the corresponding spaces on the answer sheet.

- What is (was) your father's primary occupation?
 - What is (was) your mother's primary occupation?
 - What is your long-term career choice?
 - In which occupation do you expect to be working next fall?
 - In which occupation do you expect to be working five years from now?
24. To what extent do you expect your long-term career to be related to your undergraduate major field of study?
- Highly related
 - Somewhat related
 - Unrelated
25. When did you make your present choice of career?
- I am presently undecided.
 - During my 4th or senior year in college.
 - During my 3rd or junior year in college.
 - During my 2nd or sophomore year in college.
 - During my 1st or freshman year in college.
 - During or before high school.
26. Have you changed your career choice since entering college?
- Yes
 - No (If no, go to question 28)

27. If you have changed your career choice since entering college, why did you do so? Mark **ONLY** the **one** most important reason for your most recent change.
- Previous choice seems to have few job openings.
 - Present choice offers a better financial future.
 - Present choice makes better use of my education.
 - Present choice better suits my talents and aptitudes.
 - Present choice better suits my interests.
 - Previous choice was only tentative, until I decided my actual field of interest.
 - Training for my previous choice would cost too much.
 - Lost interest in my previous choice.
 - Other.

How important has each of the following been to you in your choice of a long-term career? Darken **one** space for each factor.

| | NOT IMPORTANT | SOMEWHAT IMPORTANT | VERY IMPORTANT | |
|-----|---------------|--------------------|----------------|---|
| 28. | (n) | (s) | (v) | High income. |
| 29. | (n) | (s) | (v) | Independence (extent to which you can work alone) |
| 30. | (n) | (s) | (v) | Being of service to others. |
| 31. | (n) | (s) | (v) | Security. |
| 32. | (n) | (s) | (v) | Opportunity for leadership. |
| 33. | (n) | (s) | (v) | Interest in work activities. |
| 34. | (n) | (s) | (v) | Allows more free time than other fields. |
| 35. | (n) | (s) | (v) | Makes use of my special talents and abilities. |
| 36. | (n) | (s) | (v) | Interest in working with people rather than with things. |
| 37. | (n) | (s) | (v) | Education needed for entrance to the career takes less time than for entrance to other careers. |
| 38. | (n) | (s) | (v) | Interest in travel. |
| 39. | (n) | (s) | (v) | Status, prestige. |
| 40. | (n) | (s) | (v) | Opportunity to get ahead rapidly. |
| 41. | (n) | (s) | (v) | Desire to make a contribution to knowledge. |
| 42. | (n) | (s) | (v) | Initial job opportunities. |

How influential has each of the following sources of information or guidance been to you in making your long-term career choice? Please fill in **one** space for each potential source.

| | NOT IMPORTANT | SOMEWHAT IMPORTANT | VERY IMPORTANT | |
|-----|---------------|--------------------|----------------|---|
| 43. | (n) | (s) | (v) | Parents or other relatives. |
| 44. | (n) | (s) | (v) | Friends. |
| 45. | (n) | (s) | (v) | High school teachers or counselors. |
| 46. | (n) | (s) | (v) | College courses. |
| 47. | (n) | (s) | (v) | College teachers. |
| 48. | (n) | (s) | (v) | College career or placement counselors. |
| 49. | (n) | (s) | (v) | Other counselors. |
| 50. | (n) | (s) | (v) | Printed materials, radio, or TV. |
| 51. | (n) | (s) | (v) | Previous work experience. |

52. Did you receive occupational or career counseling while attending college? Indicate as many as are appropriate.

- (a) No (If no, go to question 54).
- (b) Yes, during my 1st or freshman year.
- (c) Yes, during my 2nd or sophomore year.
- (d) Yes, during my 3rd or junior year.
- (e) Yes, during my 4th or senior year.

53. If you answered yes to the previous question, how helpful was the counseling?

- (a) Very helpful.
- (b) Somewhat helpful.
- (c) Not helpful.

For questions 54-56, select the best response for each question from the five-item list below. Fill in **only one** response for each time period.

- (a) Working full time at a job which I expect to make my career.
- (b) Working full time at a job which will probably not be my career.
- (c) Military service.
- (d) Graduate or professional study.
- (e) Not in the work force.

54. Which **one** of the five choices above best describes what you expect to be your primary activity this fall?

55. Which **one** of the five choices above best describes what you expect to be your primary activity about five years from now?

56. Which **one** of the five choices above best describes what you expect to be your primary activity about ten years from now?

How definite do you consider the expectations marked in your last three responses?

| | VERY DEFINITE | SOMEWHAT DEFINITE | HIGHLY INDEFINITE | |
|-----|---------------|-------------------|-------------------|------------------------------------|
| 57. | (v) | (s) | (h) | This fall. |
| 58. | (v) | (s) | (h) | Approximately five years from now. |
| 59. | (v) | (s) | (h) | Approximately ten years from now. |

60. In which of the following work environments do you hope to make your long-term career? (Indicate only one.)

- (a) Self employment or private practice.
- (b) Business or industrial firm.
- (c) Educational institution.
- (d) Private research organization.
- (e) Welfare agency.
- (f) Military service.
- (g) Government or public service (not educational, welfare, or military).
- (h) Health care facility.
- (i) Other

61. Where do expect to be living when you begin your career?

- (a) Within Indiana.
- (b) Outside Indiana, but within the United States or its possessions.
- (c) In a foreign country.

Thank you very much for completing this questionnaire. Would you please return it to us in the enclosed, stamped, self-addressed envelope at your earliest convenience. If you have misplaced the envelope, send the answer sheet to:

OCCUPATION AND CAREER INTEREST SURVEY
The Indiana Commission for Higher Education
143 West Market Street
Indianapolis, Indiana 46204

LIST "A"

DEGREE PROGRAMS AND MAJOR FIELDS OF STUDY

Please use this list when you answer questions 8 through 10 in your questionnaire. Review this list carefully, find the degree program or major field of study you are looking for, and enter the corresponding two digit code number in the spaces provided on the answer sheet.

ASSOCIATE DEGREE PROGRAMS

(2 years of college)

| Code | FIELD OF STUDY | Code | FIELD OF STUDY |
|------|--|------|---|
| | <i>Business and Commerce Technologies</i> | | <i>Mechanical and Engineering Tech.</i> |
| 01 | Business and Commerce Technologies, General | 21 | Aeronautical and Aviation Technologies |
| 02 | Accounting | 22 | Graphics and Drafting Technologies |
| 03 | Banking and Finance | 23 | Automotive Technologies |
| 04 | Marketing, Distribution, and Purchasing | 24 | Electronics and Machine Technologies |
| 05 | Secretarial Technologies | 25 | Other Mechanical and Engineering Technologies |
| 06 | Other Business and Commerce Technologies | | |
| | <i>Health Service and Paramedical Tech.</i> | | <i>Miscellaneous Associate Degree Programs</i> |
| 11 | Dental Health Technologies | 31 | Data Processing Technologies |
| 12 | Medical Laboratory Technologies | 32 | Natural Science Technologies |
| 13 | Nursing | 33 | Public Service Related Technologies |
| 14 | Medical Therapy Technologies | 34 | Other Associate Degree Programs |
| 15 | Other Allied Health | | |

BACHELOR OR HIGHER DEGREE PROGRAMS

(4 years college or more)

| Code | FIELD OF STUDY | Code | FIELD OF STUDY |
|------|---|------|---|
| | | | <i>Education Fields</i> |
| 41 | Agriculture, Natural Resources, and Forestry | 61 | Elem. and Pre-Elementary Education |
| 42 | Architecture, Environmental Design, and Urban and Regional Planning | 62 | Secondary Education |
| 43 | Area Studies | 63 | Special Education |
| 44 | Biological Sciences | 64 | Health and Physical Education |
| 45 | Business and Management | 65 | Educational Administration |
| 46 | Communications (includes Journalism) | 66 | Counseling and Guidance |
| 47 | Computer and Information Sciences | 67 | Other Education Fields |
| 48 | Engineering | | <i>Health Fields</i> |
| 49 | Fine and Applied Arts | 71 | Allied Health |
| 50 | Foreign Languages | 72 | Dentistry |
| 51 | Home Economics | 73 | Nursing |
| 52 | Interdisciplinary Studies | 74 | Optometry |
| 53 | Law and Pre-Law | 75 | Pharmacy |
| 54 | Letters (includes English, Folklore, Linguistics, Literature, Speech, Philosophy, and Religion) | 76 | Physician |
| 55 | Library Science | 77 | Therapy, Occupational and Physical |
| 56 | Mathematics and Statistics | 78 | Veterinary |
| 57 | Physical Sciences | 79 | Other Health Fields |
| 58 | Psychology | | <i>Social Sciences [not psychology]</i> |
| 59 | Public Affairs and Services (includes Forensic Studies, Public Administration, Parks and Recreation, Social Work, etc.) | 81 | Economics |
| | | 82 | History |
| | | 83 | Political Science and Government |
| | | 84 | Sociology |
| | | 85 | Other Social Sciences (Anthropology, Archaeology, Geography, International Relations, etc.) |
| | | | Double Major |

LIST "B"

OCCUPATIONAL/CAREER CATEGORIES

Please use this list when you answer questions 19 through 23 in your questionnaire. Review the entire list before you select the category that most accurately identifies your response to each of the questions, then enter the corresponding two digit code number in the spaces provided on the answer sheet.

PROFESSIONAL, TECHNICAL AND KINDRED

| Code | CATEGORY | Code | CATEGORY |
|------|---|------|---|
| 01 | Engineers | | Technicians — Other |
| 02 | Life Scientists (Agricultural, Biological, Marine, etc.) | 20 | Aviation Technicians (Airplane Pilot, Air Traffic Controller, Flight Engineer, etc.) |
| 03 | Physical Scientists (Astronomer, Atmospheric and Space, Chemist, Geologist, Physicist, etc.) | 21 | Other Technicians not elsewhere classified |
| 04 | Mathematical Specialists (Actuary, Mathematician, Statistician, etc.) | 22 | Computer Specialists (Programmer, Systems Analyst, etc.) |
| | Medical Workers | 23 | Psychologists (not a teacher) |
| 05 | Dentists | 24 | Social Scientists (Economist, Historian, Political Scientist, Sociologist, Urban and Regional Planner, etc. — not a teacher) |
| 06 | Optometrists | | Education Professions |
| 07 | Pharmacists | 25 | Elementary and Pre-School Teachers |
| 08 | Physicians and Surgeons | 26 | Secondary School Teachers |
| 09 | Registered Nurses | 27 | College Teachers |
| 10 | Therapists (Occupational, Physical, Respiratory, Speech, etc.) | 28 | Special Education Professions |
| 11 | Veterinarians | 29 | School Counselors |
| 12 | Other Medical Workers (Chiropractor, Dietician, Sanitarian, etc.) | 30 | Other Education Professions |
| | Technicians — Health [for assistants, see Service Workers: Health Service Workers] | | Writers, Artists, Entertainers |
| 13 | Clinical or Medical Lab Technicians | 31 | Writers and Kindred (Author, Editor, Reporter, etc.) |
| 14 | Dental Hygienists and Dental Lab Tech. | 32 | Artists and Entertainers (Announcer, Artist, Athlete, Composer, Designer, Performer, Photographer, etc.) |
| 15 | Licensed Practical Nurses | | Other Professional Technical and Kindred |
| 16 | Therapy Technicians | 33 | Accountants and Auditors |
| 17 | Other Health Technicians (Health Records Technician, Radiologic Tech., etc.) | 34 | Architects |
| | Technicians — Science and Engineering | 35 | Clergymen and Kindred |
| 18 | Science Technicians (Agricultural, Biological, Chemical, Mathematical, etc.) | 36 | Lawyers and Judges |
| 19 | Engineering Technicians (includes draftsman) | 37 | Librarians, Curators, Archivists, etc. |
| | | 38 | Social Workers |
| | | 39 | Others (Personnel and Labor Relations, Recreation Worker, Research Worker, etc.) |

MANAGERS, OFFICIALS AND PROPRIETORS

| Code | CATEGORY | Code | CATEGORY |
|------|---|------|---|
| | Buyers, Sales, Loan Managers | 45 | Other Administrators (Local, Public, Postmaster, Mail Supervisor, etc.) |
| 40 | Bank and Financial Managers | 46 | Inspectors, Public |
| 41 | Buyers (Wholesale, Retail, Shipper, Farm Produce, Purchasing Agent, etc.) | | Other Managers, Officials and Proprietors |
| 42 | Sales Managers (Wholesale and Retail Trade) | 47 | Office Managers, not elsewhere classified |
| | Administrators and Public Inspectors | 48 | Other Managers and Administrators (Funeral Director; Hotel, Motel, Restaurant, or Bar Manager; Superintendent and Building Manager; etc.) |
| 43 | Health Administrators | | |
| 44 | School Administrators (Elementary, Secondary and College) | | |

SALES WORKERS

| Code | CATEGORY | Code | CATEGORY |
|------|--|------|---|
| 49 | Insurance Agents, Brokers, etc. | 52 | Sales Clerks — Retail Trade |
| 50 | Real Estate Agents, Brokers, etc. | 53 | Other Sales Personnel (Wholesale and Retail Trade, Manufacturing Representative, Service and Construction, etc.) |
| 51 | Stock and Bond Salespeople | | |

CLERICAL WORKERS

| Code | CATEGORY | Code | CATEGORY |
|------|--|------|---|
| | Secretaries, Stenographers, and Typists | | Other Clerical Workers |
| 54 | Secretaries and Stenographers (Personal, Legal, Medical, etc.) | 58 | Bookkeepers |
| 55 | Typists | 59 | Cashiers |
| | Office Machine Operators | 60 | Other Clerical Workers (Bank Teller, Clerk, Receptionist, Telephone Operator, etc.) |
| 56 | Key punch and Computer Equipment Operators | | |
| 57 | Others (Bookkeeping and Billing Machine, Calculating, Duplicating, etc.) | | |

CRAFTSMEN, FOREMEN AND KINDRED

| Code | CATEGORY | Code | CATEGORY |
|------|--|------|--|
| | Construction Craftsmen | | Mechanics, Repairmen, and Installers |
| 61 | Construction Machinery Operators (Bulldozer, Excavating and Grading Machine, etc.) | 66 | Airconditioning, Heating, Refrigeration Workers |
| 62 | Electricians | 67 | Automotive Workers (Accessories Installer, Body Repairman, Mechanic, etc.) |
| 63 | Other Construction Craftsmen | 68 | Heavy Equipment and Diesel Mechanics |
| 64 | Metalworking Craftsmen (Not mechanics) | 69 | Other Mechanics and Repairmen |
| 65 | Foremen, not elsewhere classified | 70 | Printing Trade Craftsmen |
| | | 71 | Transportation and Public Utilities Craftsmen |
| | | 72 | Other Craftsmen and Kindred Workers (Baker, Cabinetmaker, Jeweler, Miller, Optician, Stone Cutter, Tailor, Upholsterer, Window Dresser, etc.) |

OPERATIVES

| Code | CATEGORY | Code | CATEGORY |
|------|--|------|--|
| | Operatives other than Transportation Equipment | 76 | Other Operatives (Assembler and Production Worker, Bottling and Canning Worker, Dressmaker, Garage Worker and Gas Station Attendant, Laundry and Dry Cleaning Operative, Meat Cutter and Butcher, Mine Operative, etc.) |
| 73 | Semiskilled Metalworking Operatives (Drill Press, Lathe, Welder, etc.) | | |
| 74 | Semiskilled Textile Workers (Knitter, Spinner, Weaver, etc.) | 77 | Transport Equipment Operatives (Bus and Taxi Driver, Railroad Operative, Truck Driver, etc.) |
| 75 | Semiskilled Packing and Inspecting Workers | | |

SERVICE WORKERS

| Code | CATEGORY | Code | CATEGORY |
|------|--|------|--|
| 78 | Cleaning Service Workers — not Private Household (Maid, Cleaner, Janitor, etc.) | 81 | Personal Service Workers (Airline Steward and Stewardess, Barber, Child Care Worker, Hairdresser and Cosmetologist, Welfare Service Aide, etc.) |
| 79 | Food Service Workers — not Private Household (Bartender, Cook, Waiter, etc.) | 82 | Protective Service Workers (Fireman, Policeman, Watchman, etc.) |
| 80 | Health Service Workers (Dental Assistant, Health Aid, Nurse's Aid, Orderly, etc.) | 83 | Private Household Workers (Cook, Housekeeper, Servant, etc.) |

LABORERS

| Code | CATEGORY |
|------|--|
| 84 | Laborers, not Farm Workers (Construction Laborer, Freight Handler, Garbage Collector, Gardener, etc.) |

FARMERS AND FARM WORKERS

| Code | CATEGORY | Code | CATEGORY |
|------|--|------|---------------------------------------|
| 85 | Farmers and Farm Managers (Manager, Owner, or Tenant) | 86 | Farm Laborers and Farm Foremen |

OTHER CATEGORIES

| Code | CATEGORY |
|------|--------------------------|
| 87 | Military Services |
| 88 | Housewife |
| 89 | Student |

OCCUPATION AND CAREER INTEREST SURVEY ANSWER SHEET

If you do not expect to complete requirements for an associate or bachelor's degree during the spring or summer of 1975, please return the answer sheet unmarked in the enclosed, stamped self-addressed envelope.

OFFICE USE ONLY

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

SAMPLE:

Question 1 on survey: 1. What is your sex? a. Male

RESPONSE ON ANSWER SHEET TO QUESTION 1 1. ☐ b

USE NO.2 PENCIL

1. a b

2. a b c d e f

3. a b

4. a b c

5. a b

6. All Courses

a b c d

7. Major Field

a b c d

See List A for Two Digit Code for Questions 8-9-10

8. Earliest Major Field of Study

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

9. Current Major Code

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

10. Future Field of Study

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Questions 11-15 mark your responses as follows:

If Not Important Mark the "n"
If Somewhat Important Mark the "s"
If Very Important Mark the "v"

11. n s v

12. n s v

13. n s v

14. n s v

15. n s v

16. a b c d e f

17. Father's Education Level

a b c d e f g h

18. Mother's Education Level

a b c d e f g h

INDIANA COMMISSION
FOR
HIGHER EDUCATION

See List B for Two Digit Code for Questions 19-20-21-22-23

19. Father's Occupation

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

20. Mother's Occupation

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

21. Career Choice

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

22. Expected Fall Occupation

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

23. Expected 5-Year Occupation

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

24. a b c

25. a b c d e f

26. a b

27. a b c d e f g h i

Questions 28-42 mark your responses as follows:

If Not Important Mark the "n"
If Somewhat Important Mark the "s"
If Very Important Mark the "v"

28. n s v

29. n s v

30. n s v

31. n s v

32. n s v

33. n s v

34. n s v

35. n s v

36. n s v

37. n s v

38. n s v

39. n s v

40. n s v

41. n s v

42. n s v

Questions 43-51 mark your responses as follows:

If Not Important Mark the "n"
If Somewhat Important Mark the "s"
If Very Important Mark the "v"

43. n s v

44. n s v

45. n s v

46. n s v

47. n s v

48. n s v

49. n s v

50. n s v

51. n s v

52. a b c d e

53. a b c

54. a b c d e

55. a b c d e

56. a b c d e

Questions 57-59 mark your responses as follows:

If Very Definite Mark the "v"
If Somewhat Definite Mark the "s"
If Highly Indefinite Mark the "h"

57. v s h

58. v s h

59. v s h

60. a b c d e f g h i

61. a b c

APPENDIX C

LEVEL OF SIGNIFICANCE OF DIFFERENCES IN RESPONSES BY
SEX AND TYPE OF INSTITUTION (USING CHI-SQUARE)

| Table No. | Question No. | MALE - FEMALE | | | PUBLIC - INDEPENDENT | | |
|--------------|-----------------|---------------|----|-------------|----------------------|----|-------------|
| | | Chi-square | df | Probability | Chi-square | df | Probability |
| 2 | 1 | -- | -- | -- | 5.200 | 1 | .023 |
| 3 | 2 | 50.754 | 4 | .000 | 20.597 | 4 | .000 |
| 4 | 3 | 1.267 | 1 | .260 | 7.964 | 1 | .005 |
| 5 | 4 | 0.926 | 2 | .630 | 13.090 | 2 | .001 |
| 6 | 19 | 15.153 | 9 | .087 | 3.753 | 9 | .927 |
| 6 | 20 | 16.829 | 9 | .052 | 4.669 | 9 | .862 |
| 7 | 17 | 18.690 | 7 | .009 | 6.448 | 7 | .489 |
| 8 | 18 | 14.481 | 6 | .025 | 7.440 | 6 | .282 |
| 9 | 5 | 13.950 | 1 | .000 | 1.125 | 1 | .289 |
| 10 | 6 | 2.480 | 3 | .479 | 8.859 | 3 | .031 |
| 10 | 7 | 49.656 | 3 | .000 | 17.102 | 3 | .001 |
| 11 | 8 | 707.341 | 12 | .000 | 115.095 | 12 | .000 |
| 11 | 9 | 731.924 | 3 | .000 | 115.867 | 3 | .000 |
| 12 | 10 | 487.223 | 8 | .000 | 45.569 | 8 | .000 |
| 13 | 16 | 14.907 | 5 | .011 | 20.209 | 5 | .001 |
| 14 | 54 | 96.425 | 4 | .000 | 7.671 | 4 | .104 |
| 14 | 55 | 68.377 | 4 | .000 | 6.271 | 4 | .180 |
| 14 | 56 | 111.801 | 4 | .000 | 5.949 | 4 | .203 |
| 16 | 57 | 29.464 | 2 | .000 | 1.533 | 2 | .465 |
| 16 | 58 | 29.503 | 2 | .000 | 4.010 | 2 | .135 |
| 16 | 59 | 59.450 | 2 | .000 | 4.944 | 2 | .084 |
| 18 | 21 | 269.557 | 10 | .000 | 34.655 | 10 | .000 |
| 18 | 22 | 423.788 | 11 | .000 | 48.061 | 11 | .000 |
| 18 | 23 | 305.956 | 11 | .000 | 33.887 | 11 | .001 |
| 20 | 24 | 58.537 | 2 | .000 | 5.245 | 2 | .073 |
| 25 | 60 | 481.001 | 8 | .000 | 16.084 | 8 | .041 |
| 26 | 28 | 18.710 | 2 | .000 | 0.905 | 2 | .636 |
| 26 | 29 | 7.437 | 2 | .024 | 0.755 | 2 | .686 |
| 26 | 30 | 184.116 | 2 | .000 | 10.835 | 2 | .004 |
| 26 | 31 | 1.937 | 2 | .380 | 1.259 | 2 | .533 |
| 26 | 32 | 19.862 | 2 | .000 | 2.378 | 2 | .305 |
| 26 | 33 | 1.305 | 2 | .521 | 3.314 | 2 | .191 |
| 26 | 34 | 5.799 | 2 | .055 | 1.433 | 2 | .488 |
| 26 | 35 | 0.544 | 2 | .758 | 1.194 | 2 | .551 |
| 26 | 36 | 292.420 | 2 | .000 | 15.854 | 2 | .000 |
| 26 | 37 | 16.768 | 2 | .000 | 2.935 | 2 | .231 |
| 26 | 38 | 17.044 | 2 | .000 | 0.077 | 2 | .962 |
| 26 | 39 | 4.873 | 2 | .088 | 2.055 | 2 | .358 |
| 26 | 40 | 88.696 | 2 | .000 | 0.095 | 2 | .954 |
| 26 | 41 | 2.588 | 2 | .274 | 1.363 | 2 | .506 |
| 26 | 42 | 25.673 | 2 | .000 | 3.213 | 2 | .201 |
| 28 | 25 | 82.766 | 3 | .000 | 10.325 | 3 | .016 |
| 29 | 26 | 24.842 | 1 | .000 | 0.204 | 1 | .651 |
| 30 | 27 | 13.737 | 8 | .089 | 3.102 | 8 | .928 |
| 31 | 43 | 9.186 | 2 | .010 | 8.878 | 2 | .012 |
| 31 | 44 | 1.378 | 2 | .502 | 2.157 | 2 | .340 |
| 31 | 45 | 1.582 | 2 | .453 | 6.094 | 2 | .048 |
| 31 | 46 | 6.249 | 2 | .044 | 6.868 | 2 | .709 |
| 31 | 47 | 11.955 | 2 | .003 | 1.548 | 2 | .461 |
| 31 | 48 | 1.858 | 2 | .395 | 0.749 | 2 | .688 |
| 31 | 49 | 1.985 | 2 | .371 | 2.041 | 2 | .361 |
| 31 | 50 | 2.773 | 2 | .250 | 9.958 | 2 | .007 |
| 31 | 51 | 0.723 | 2 | .697 | 1.407 | 2 | .495 |
| 33 | 53 | 4.190 | 2 | .123 | 0.659 | 2 | .719 |
| 34 | 61 | 62.062 | 2 | .000 | 1.435 | 2 | .488 |
| Fig.1 | 11 | 3.548 | 2 | .170 | 2.106 | 2 | .349 |
| Fig.1 | 12 | 6.659 | 2 | .036 | 5.084 | 2 | .079 |
| Fig.1 | 13 | 2.140 | 2 | .343 | 5.440 | 2 | .066 |
| Fig.1 | 14 | 1.585 | 2 | .453 | 3.323 | 2 | .190 |
| Fig.1 | 15 | 27.599 | 2 | .000 | 2.755 | 2 | .252 |